
Draft Environmental Impact Report

PREPARED FOR

SONOMA COUNTY
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS

WATMAUGH ROAD BRIDGE OVER SONOMA CREEK REPLACEMENT PROJECT

Bridge #20C-0017
04-SON-0-CR
P.M. 11.83 to 11.91

State Clearinghouse SCH #2012082037

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Sonoma County Permit and Resource Management Department
Environmental Review Division
2550 Ventura Avenue
Santa Rosa, California 95403



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SECTION 1 - INTRODUCTION

1.1 PURPOSE OF THE EIR

The Draft Environmental Impact Report (EIR) addresses the potential impacts of the proposed Watmaugh Road Bridge over Sonoma Creek Replacement Project (hereafter called "the project"). The Sonoma County Department of Transportation and Public Works (DTPW) propose to replace the existing Watmaugh Road Bridge over Sonoma Creek southwest of the City of Sonoma. The existing bridge was originally constructed in 1929 and is designated locally as a County Landmark.

This EIR has been prepared in conformance with the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 *et seq.*) and the *CEQA Guidelines* (Title 14 California Code of Regulations Section 15000 *et seq.*) as amended to date. CEQA requires that public agencies prepare and certify an EIR before carrying out projects that may have significant effects on the environment (Public Resources Code Section 21080). Preparation of an EIR is the responsibility of the "lead agency." For the purposes of CEQA, the "lead agency" is the public agency that has the principal responsibility for carrying out or approving the project (Public Resources Code, Section 21067). Because the County of Sonoma is the agency that would approve the proposed project, it is the lead agency for the project.

The EIR has been prepared by the County of Sonoma (hereafter called "the County") for the following purposes:

- to evaluate the environmental effects associated with the implementation of the proposed project, as required by CEQA;
- to inform the general public, the local community, and responsible trustee, state, and federal agencies of the nature of the proposed project, its potentially significant environmental effects, feasible mitigation measures to mitigate those effects, and its reasonable and feasible alternatives;
- to enable the County decision makers to consider the environmental consequences of the proposed project;
- to facilitate responsible agencies in issuing permits and approvals for the proposed project.

As described in CEQA and the *CEQA Guidelines*, public agencies are charged with the duty to avoid or substantially lessen significant environmental impacts where feasible. Where impacts cannot be mitigated to less-than-significant levels, public agencies have an obligation to balance the project's significant impacts on the environment against other factors, including economic, social, technological, legal, and other benefits.

This EIR is an informational document that is intended to inform the County (the Lead Agency), other public agency decision makers, and the public of (i) the significant environmental effects of the proposed project, (ii) feasible mitigation measures that could avoid or significantly lessen these impacts, and (iii) reasonable and feasible alternatives to the proposed project that would eliminate any significant adverse environmental impacts or reduce the impacts to less- than-significant levels.

The County will consider the information in this EIR along with other information presented during the decision-making process when determining whether to adopt or modify the proposed project or an alternative. CEQA requires the lead agency to consider the information in the EIR, along with any other relevant information, in making its decision on the project. The information contained in this EIR does not control the County's ultimate decision on the project. However, if the County Board of Supervisors decides to approve the project, then the County must respond to each significant effect identified in the EIR by making findings under Section 15091 of the *CEQA Guidelines*¹ and, if necessary, making a Statement of Overriding Consideration in accordance with the provisions of Section 15093.

The proposed project would replace the existing truss bridge that was constructed in 1929 and replace it with a new concrete 32-ft wide box girder or concrete slab bridge, essentially within the alignment of the current bridge. In an effort to maintain the visual setting of the existing bridge, the trusses from the bridge will be retained, restored to the extent practicable, and added to the new bridge as a nonstructural element.

1.2 EIR REVIEW PROCESS

Required Contents

This EIR has been prepared by the County of Sonoma as Lead Agency in conformance with the California Environmental Quality Act (CEQA). As such, it provides objective information addressing the environmental consequences of the proposed project and possible ways to reduce or avoid these impacts.

This EIR addresses all the areas of potentially significant impact as well as other potential impact areas that CEQA requires an EIR to investigate. The environmental effects of the project are analyzed for each topic. The *CEQA Guidelines* define the effects of a project as changes from the environmental setting (i.e., existing conditions) that are attributable to the project. Particularly pertinent sections of the *CEQA Guidelines* are listed below.

Section 15121(a) (Information Document) states that "an EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to

¹ All further Section references are to the CEQA Guidelines unless otherwise noted.

make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts.”

Section 15151 (Standards for Adequacy of an EIR) states that an EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information that enables them to make an informed decision taking into account the environmental consequences of the project. The evaluation of the environmental effects does not need to be exhaustive. Disagreement among experts does not make an EIR inadequate, though the EIR will summarize the main points of disagreement among the experts.

Section 15003(i and j) (Policies) states that technical perfection is not necessary, but adequacy, completeness, and a good-faith effort at full disclosure are required. "CEQA requires that decisions be informed and balanced. It must not be subverted into an instrument for the oppression and delay of social, economic, or recreational development or advancement."

Section 15143 (Emphasis) states that the EIR shall focus on the significant effects on the environment. The significant effects will be discussed with emphasis in proportion to their severity and probability of occurrence. Effects dismissed in the Initial Study as clearly insignificant and unlikely to occur need not be discussed further in the EIR. Discussion of each major topic includes criteria used to evaluate whether an environmental impact is significant or insignificant. As explained in Section 15002(g) of the CEQA Guidelines,

Section 15002(g) (Significance) states that a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project. The significance criteria for each topic in this EIR have been developed based on guidelines set forth in the CEQA Guidelines as modified in some cases by standards established by the County. This EIR lists the thresholds of significance for each area of impact and assesses whether the project's impacts exceed these thresholds. If the impact does not exceed the threshold or if the recommended mitigation measures reduce the impact below the thresholds, then the impact is considered to be less-than-significant.

Public Review and Comment

Notice of Preparation

The County issued a Notice of Preparation (NOP) to prepare an EIR on the project on August 7, 2012. The NOP is on file with the Sonoma County Permit and Resource Management Department (PRMD). In addition, the Initial Study circulated on August 7, 2012, summarized all of the recent public meetings that concern this project and is included in the EIR as Appendix D.

The County received four written responses to the NOP from the following groups:

1. California Department of Transportation
2. Citizens for the Preservation of Sonoma Historic Bridges
3. California Department of Fish and Game.
4. Ron and Marilyn Kiser.

This NOP and all written responses to it are on file with PRMD and are included in the EIR as Appendix B and Appendix C, respectively.

Environmental Review Committee Public Scoping Meetings

The County held a public scoping meeting in the PRMD hearing room in Santa Rosa, California on August 7, 2012. The scoping meeting was attended by approximately 10 people, including County staff. Two members of the public offered oral comments on the scope of the EIR and the project. A summary of the ERC Scoping Meeting is presented in Appendix C of this EIR.

Distribution of the Draft EIR

A public review period of at least 45 days will be provided for this Draft EIR. This review period begins on the publication date of the Notice of Completion of the Draft EIR. During the public review period, the County will hold one public hearing on the Draft EIR. In addition, public agencies and interested individuals may submit comments in writing to Rich Stabler, Sonoma County Permit and Resource Management Department, 2550 Ventura Avenue, Santa Rosa, CA 95403-2829.

The information contained in this report is considered to be accurate, but it is subject to review and comment by the County, other responsible agencies, and the public. The public is invited to review the document and comment on its accuracy and completeness. Copies of the DEIR will be available for public review and for copying at Sonoma County Permit and Resource Management Department, 2550 Ventura Avenue, Santa Rosa, Sonoma County Department of Transportation and Public Works 2300 County Center Drive, Suite B 100 Santa Rosa, California 95403, or online at <http://www.sonoma-county.org/tpw/bridges.htm> or at the addresses listed below:

Sonoma County Central Library, 3rd and E Streets, Santa Rosa
Sonoma Valley Library 755 W Napa St, Sonoma, CA 95476

Certification of the Final EIR

Once the public review period is closed, a Final EIR will be prepared. The Final EIR will incorporate this Draft EIR by reference, and it will contain all comments (both written and oral) on this Draft EIR, written responses to those comments, and any revisions to the text of this

Draft EIR. The Final EIR will be considered by the Sonoma County Board of Supervisors and when the Board finds the EIR to be complete and accurate, it will certify the document. The Final EIR must be certified before any action on the proposed project can occur

Project Approval

CEQA requires that when a public agency approves a project and finds that changes or alterations have been incorporated into the project in order to mitigate or avoid significant environmental effects identified in an EIR, the agency must also adopt a reporting or monitoring program for those measures that it has adopted or made a condition of project approval. Findings explain the connection between the analysis in the environmental document and the decisions by the decision-makers. The reporting or monitoring program must be designed to ensure compliance during project implementation. The mitigation monitoring program for the EIR will be prepared at the time the final EIR is prepared and must be adopted concurrently with approval of the project.

After the Board of Supervisors has certified the EIR, and if it approves the project, a Notice of Determination will be filed with the State Office of Planning and Research and the Sonoma County Clerk.

1.3 RANGE OF ALTERNATIVES ASSESSED IN THE EIR

CEQA requires that a reasonable range of alternatives be discussed in an EIR. This EIR identifies and analyzes such a reasonable range of alternatives; discusses the environmental effects of each alternative; and compares the environmental effects of each alternative with the environmental setting and with the project; and addresses the relationship of each alternative to the project objectives. The determinations of the County concerning the feasibility, acceptance, or rejection of each and all alternatives considered in this EIR will be addressed and resolved in the County's findings when it considers approval of the project, as required by CEQA.

The full range of alternatives consists of the following:

1. No Project Alternative
2. Replace Existing bridge with a steel arch bridge
3. Seismic Retrofit of Existing Bridge
4. Rehabilitation of Existing Bridge
5. Parallel Bridge Downstream, Existing Bridge Remains
6. Parallel Bridge Upstream, Existing Bridge Remains
7. Rehabilitate Existing Bridge and Add a Parallel Bike/Ped bridge Up or Downstream
8. Rehabilitate Existing Bridge and Add a One-Way Bridge for Traffic and Bike/Peds Downstream of Existing Bridge

1.4 INTENDED USES OF THE EIR

The primary uses of the DEIR are (1) to inform decision-makers and the public about the significant environmental effects of a project and the ways to avoid or reduce the significant environmental effects; (2) to demonstrate to the public that the environment is being protected; and (3) to ensure that the planning and political processes reflect an understanding of the environmental cost of a project. The intent of the DEIR also is to provide the information and environmental analysis necessary to assist public decision-makers in considering all of the approvals and permits necessary to implement the project.

The EIR is a public information document used in the planning and decision-making process. CEQA requires that all state and local agencies consider the environmental consequences of projects over which they have discretionary authority. The following agencies may use this EIR to base their decision on issuing discretionary approvals for this project.

Lead Agency

The Lead Agency under CEQA for the project is the County of Sonoma. The Sonoma County Board of Supervisors will be responsible for certifying the EIR and making a decision on the proposed Project.

Responsible Agencies

Responsible Agencies are agencies that must issue some form of permit or determination for the project and, thus, rely on the EIR for the environmental documentation required prior to issuing said permit. Potential Responsible Agencies and required approvals for the proposed bridge replacement project are listed below.

Federal Agencies

1. *Army Corps of Engineers* - regulates activities that have the potential to affect navigable waters under Section 10 of the Rivers and Harbors Act of 1899 (Section 10 permits) and waters of the United States under Section 404 of the Clean Water Act (Section 404 permit). The Corps would be responsible for determining its jurisdiction over wetlands and waters of the U.S. that would be removed or filled and determining what level of mitigation would be required for that removal/filling.
2. *Environmental Protection Agency* - oversees the analysis of the Army Corps of Engineers regarding the issuance of permits for filling wetlands under Section 404 permits and issues permits for point source discharges to waterways.

3. *U.S. Fish and Wildlife Service* - administers the Federal Endangered Species Act and the Marine Mammal Protection Act. The USFWS is an advisory agency to the Army Corps on Section 404 and Section 10 projects. The USFWS reviews mitigation plans for these projects.
4. *National Marine Fisheries Service* - administers the Federal Endangered Species Act and the Marine Mammal Protection Act as they pertain to marine and anadromous species.

State Agencies

1. *Regional Water Quality Control Board (RWQCB)* – regulates discharges to waterways through the adoption of Waste Discharge Requirements (WDR) and National Pollution Discharge Elimination System (NPDES) permits.
2. *Office of Planning and Research* - circulates EIRs for review by State agencies.
3. *The California State Office of Historic Preservation (OHP)* is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer (SHPO), a gubernatorial appointee, and the State Historical Resources Commission. Includes the California Register of Historical Resources identifies the state's historical resources and what properties are to be protected, to the extent prudent and feasible, from substantial adverse change.
4. *Department of Fish and Game (CDFG)* - has authority to oversee work done in streams pursuant to Fish and Game Code 1601 and 1603. An applicant who proposes to substantially divert the natural flow of a stream, substantially alter its bed or bank, or use any material from the streambed must first enter into a "Streambed Alteration Agreement" with CDFG.
5. *Native American Heritage Commission* - mandated to preserve and protect places of special religious or cultural significance pursuant to Section 5097 et seq. of the Public Resources Code.
6. *Department of Toxic Substances Control* - oversees the clean-up of sites where hazardous substances, have been released.

Local Agencies

1. *Sonoma County Permit and Resource Management Department* –reviews and processes roiling permits under Section VIII of the Water Clarity Ordinance of the County of

Sonoma, Ordinance No. 3836R (Chapter 23 of the Sonoma County Code) for work in Sonoma Creek.

Other Agencies

In addition to the Lead and Responsible Agencies, including those that may issue some form of permit for the project, the Draft EIR will be sent to Federal, State, and local agencies that provide services in the area. These include:

1. Sonoma Fire Protection District
2. Association of Bay Area Governments

The Draft EIR will also be sent to any identified trustee agencies. The *CEQA Guidelines* (Section 15386) define "trustee agency" as "a State agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California." Trustee Agencies include the California Department of Fish and Game, which has jurisdiction over State fish and wildlife, designated rare or endangered native plants, and game refuges, ecological reserves, and other areas. (See discussion under "State Agencies" above.)

1.5 ORGANIZATION OF THE EIR

After this *Introduction Section*, the Draft EIR is organized as follows:

- **Section 2.0 – Summary Section**, provides a brief summary of the proposed actions and their consequences.
- **Section 3.0 –Project Description**, describes the location of the project site, existing land uses on and near the project site, all aspects of the project as proposed, and the approvals and permits required before the project could be implemented, if approved.
- **Section 4.0 –Initial Study Summary**, describes existing environmental conditions on the site and within the study area, identifies probable impacts from implementing the project, and describes mitigation measures required to substantially reduce or eliminate potentially significant adverse impacts.
- **Section 5A.0 –Aesthetics Section**, describes the baseline, potential impacts, and mitigations to visual resources.
- **Section 5B.0 –Cultural Section**, describes the baseline, potential impacts, and disuses proposed mitigation measures to cultural resources.

- **Section 5C.0 – Land Use and Planning** discusses existing land use at the project site and vicinity, considers the compatibility of the proposed project with neighboring land uses, compliance with zoning regulations, and project consistency with relevant land use plans and policies.
- **Section 6.0 – Other Environmental Consideration** lists several subjects that must be addressed in an EIR. This section discusses the subjects and identifies other parts of the DEIR in which the subjects are discussed.
- **Section 7.0 – Alternatives Analysis**, analyses the proposed project and a range of reasonable and feasible alternatives.
- **Section 8.0 – Preparers and Persons Consulted**, includes the report preparers, the people and organizations consulted, and the bibliography.
- **Section 9.0 – References**, includes the information sources that were consulted while preparing the document. Specific references to information cited in this section are made in the body of the sections and noted parenthetically (e.g. (1) would refer the reader to reference #1 listed in this section.
- **Appendices**, included are the Initial Study, NOP and responses, and technical background material supporting the Draft EIR text.

SECTION 2 - SUMMARY

This summary section is provided in accordance with State CEQA Guidelines Section 15123. As stated in the State CEQA Guidelines Section 15123(a), “(a)n EIR shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical.” State CEQA Guidelines Section 15123(b) states, “(t)he summary shall identify: (1) each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) areas of controversy known to the Lead Agency including issues raised by agencies and the public; and (3) issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.” Accordingly, this summary includes a brief synopsis of the project and project alternatives, environmental impacts and mitigations, cumulative effects and mitigation, areas of known controversy, and issues to be resolved in the environmental impact report (EIR).

Summary of the Proposed Project

The purpose of the project is to provide a road crossing over Sonoma Creek that meets modern design standards and accommodates local and regional transportation needs. The existing pony truss bridge was constructed in 1929 and is approaching the end of its service life. Due to the age of the bridge, and channel changes since original bridge construction, the existing structure has a number of deficiencies. The proposed project would demolish the existing structure but retain the original trusses to be added to the new structure. A new concrete box girder or slab bridge would be constructed in approximately the original alignment and the original trusses would be fixed to the new bridge as a non-structural element.

Summary of Significant Unavoidable Impacts

This EIR identifies several potentially significant adverse impacts that would result from project development. The EIR presents mitigation measures that would eliminate most of those impacts or reduce them to a level that is considered less-than-significant. Due to the loss of the 1929 Warren pony truss bridge the impact to cultural resources cannot be reduced to a less-than-significant.

If the Board of Supervisors does not include the required mitigations recommended in this EIR for other potentially significant impacts (as summarized in Section 4), then the impacts those measures are intended to mitigate would also be judged as remaining significant adverse impacts.

It is noted that, during the public review process, the Board of Supervisors has the authority to determine that any of these impacts are, in fact, significant despite recommended mitigations. Ultimately, this EIR is the County's EIR, and the Board of Supervisors is responsible for its conclusions. If the Board of Supervisors believes, on the basis of data presented in this report, additional data provided during the public review process or other public data available to the

Board of Supervisors, that impacts should be identified as "significant," then the Board of Supervisors has the authority to find such impacts significant. In doing so, the Board of Supervisors must provide written support to justify its action(s). If impacts are deemed significant, then the Board of Supervisors must address these impacts when issuing a Statement of Overriding Considerations if the Board of Supervisors decides to approve the project.

Summary of Growth-Inducing Impacts

The proposed project would not add capacity to the existing roadway and would in no way create growth inducing effects.

Summary of Cumulative Impacts

This section assesses potential cumulative impacts of the project pursuant to Section 15130(a) of the CEQA Guidelines. CEQA Guidelines 15355 defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, or reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” In addition, Section 21083(b), Public Resources Code, and CEQA Guidelines Section 15130 (b)(1)(A) and (B), emphasize the need to either consider and assess projects with related impacts, or to summarize projections contained in adopted general plans, when discussing cumulative impacts. The DEIR considered cumulative impacts under cultural and visual resources and with policies and zoning within the Land Use and Planning Section and concludes that none would result in a cumulatively considerable impacts.

Summary of Plan and Policy Consistency

Sonoma County General Plan 2020 (General Plan) adopted in 2008, is the County’s current general plan. The General Plan consists of several plan elements and projects of the County are subject to the General Plan. A General Plan Consistency Determination was prepared for the proposed project and was found to be consistent with the General Plan. The existing bridge has a Historic District zoning overlay and removal of the bridge, as proposed by the project, would conflict with the existing HD zoning (see Section 5C a full description and analysis of these issues).

Summary of Project Alternatives Analysis

The State CEQA Guidelines require that an EIR include an evaluation of a range of reasonable alternatives to the project that would feasibly attain most of the project objectives while avoiding

or substantially reducing any of the significant impacts of the project. Two alternatives were considered but rejected due to a various issues and concerns, and the following six were analyzed in more detail:

- 1) No Project Alternative
- 2) Parallel Bridge Downstream, Existing Bridge Remains
- 3) Replace Existing Bridge with a Steel Arch Bridge
- 4) Rehabilitation of Existing Bridge
- 5) Rehabilitate Existing Bridge and Add a Parallel Bike/Ped bridge Up or Downstream
- 6) Rehabilitate Existing Bridge and Add a One-Way Bridge for Traffic and Bike/Peds Downstream of Existing Bridge

(See Section 7, Project Alternatives, of this EIR for a full description and analysis of the alternatives).

Summary of Major Conclusions and Issues to Be Resolved

The major conclusions of the EIR are presented in this section. The issues are presented to highlight the topics for which the decision-makers may want to focus special attention.

1. The Initial Study identified a total of 18 potentially significant project-specific environmental impacts (see section 4). Feasible mitigation is available to reduce all of the impacts described in the Initial Study to a less-than-significant level. The EIR found that all impacts to scenic resources could be mitigated to insignificance but impacts to the historic resource in the Cultural Section (Section 5B) and to plans and Policies in the Land Use and Planning Section (Section 5C) remain significant and unavoidable (SU).

SECTION 3 – PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SETTING

The project site is designated as a Scenic Landscape Unit in the Sonoma County 2020 General Plan Open Space and Resource Conservation Element. The Sonoma County Official Zoning Database, places the bridge into two combining districts: the bridge in the Historic District (HD) and Sonoma Creek in the F2 Floodplain. Zoning Districts adjacent to the project site include Biotic Resources (BR), Valley Oak Habitat (VOH) and Scenic Resource (SR) combining districts. The VOH extends along Watmaugh Road as far east as Highway 12; dense riparian habitat borders the banks of the creek near the project site. The SR extends along Watmaugh Road as far west as Arnold Drive.

Watmaugh Road is designated in the Sonoma County GP 2020 as a Rural Minor Collector. The average daily traffic (ADT) on Watmaugh Road east of Arnold Drive is approximately 3671 vehicles. The AM peak hour traffic volumes on Watmaugh Road were 531 vehicles and PM peak hour traffic was 329 vehicles. The highest single lane traffic count was 391 east bound vehicles per hour at 8 AM (TPW traffic count 5/14/2011).

The existing pony truss bridge was constructed in 1929 and was designated as a County Landmark in 1981. The bridge is approaching the end of its service life and has many structural deficiencies that plague the existing structure, including load limitations, poor sight distance, lack of shoulders, the lack of seismic upgrades, and scour /undermining issues at the foundations. The current bridge has two concrete piers that lack underlying piles. They are both located within the channel, with the easterly pier located upslope while the westerly pier is located in the active low-flow channel. As a result, the westerly pier receives a great deal of annual scour and has become undermined. The creek channel within the vicinity of the project consists of a series of runs, glides, and riffles that are punctuated by a small (approximate 10-ftx15-ft) side pool that has formed due to excessive scour near the westerly pier.

The FEMA Flood Profile for Sonoma Creek shows the existing bridge deck at about elevation 49, the bottom of the existing bridge at elevation 47 and the 100-year storm water surface in the creek at elevation 45. The west side of the creek at the bridge is dominated by Rock Slope Protection (RSP). The average flow velocity of Sonoma Creek at Watmaugh Road Bridge is 6.5 ft. per second.

3.2 PROJECT DESCRIPTION

Introduction to the Scope of Project

California has a statewide program to replace or retrofit bridges to comply with seismic safety standards. In the fall of 1998, Sonoma County staff presented a project to the Landmarks Commission to seismically retrofit the existing bridge. Recently County staff has presented a project to remove and replace the bridge as an informational item to the County's Landmarks Commission during three of their regularly scheduled meetings, specifically in the fall of 2010 and winter of 2011 (September 7, 2010, October 5, 2010, and February 1, 2011). Also, recently, on June 7, 2011, staff brought an informational item that proposed a bypass bridge just downstream from the existing 1929 bridge. The plan presented at each of these meetings was met with strong opposition from the local public and members of the Commission. As a result of these meetings, the DTPW has redesigned the project to include saving the existing trusses and attaching them to the new bridge structure. This concept, along with preserving the existing alignment, may reduce impacts to the existing Landmark status bridge, and would still meet the principal objective of the proposed project – to meet public transportation needs along Watmaugh Road.

Project Objectives

Section 15124(b) of the CEQA Guidelines requires that the Project Description of an EIR contain a statement of objectives sought by the proposed project. The project sponsor's objectives include:

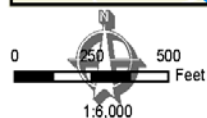
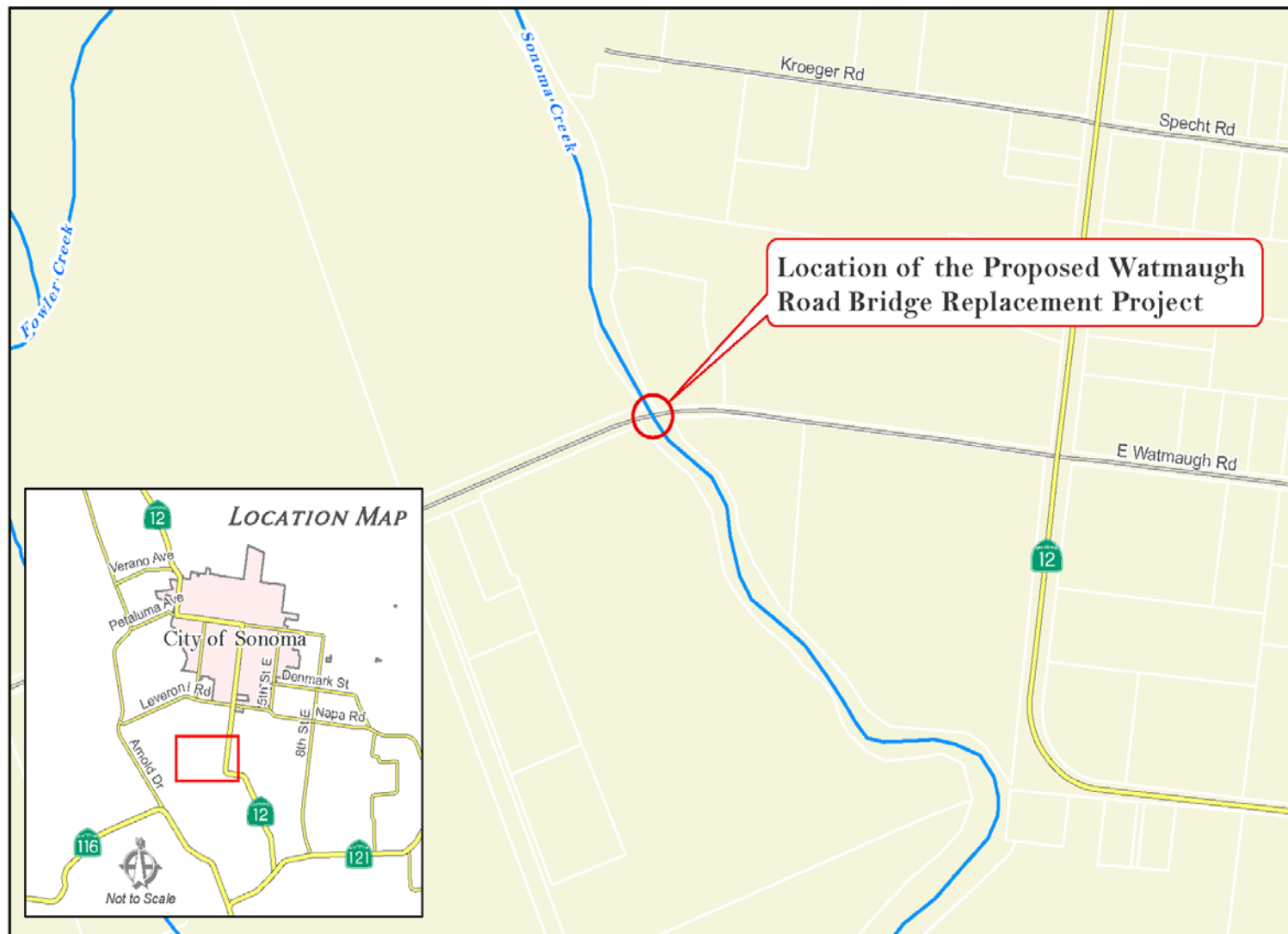
The Sonoma County Department of Transportation and Public Works Department has identified the following objective for the proposed project:

- 1) Eliminate structural deficiencies and increase load limits.
- 2) Incorporate modern seismic standards.
- 3) Provide standard shoulder width that would accommodate large loads and minimize frequent collisions with guard railing.
- 4) Provide improved road alignments and site distance.
- 5) Eliminate the risk crack induced failure of non-redundant structural components of the bridge that could result in failure (also called "fracture critical" condition).

Description of Proposed Project

The proposed bridge project would be located on Watmaugh Road where it crosses Sonoma Creek (Figure 1). The project would construct a replacement bridge within the approximate alignment of the existing bridge (Figure 2).

PROPOSED WATMAUGH ROAD BRIDGE REPLACEMENT PROJECT



Note:
 1. Parcel boundaries derived from 1:50,000 outline maps and revised using Assessor's Parcel Maps. Alignment inaccuracies occur due to projection.
 2. Data is for planning purposes.
 3. Questions regarding this map and the data herein should be directed to PRMD (707) 565-1900.
 4. Topography USGS 7.5 Quadangle sheet.

Map Scale and Reproduction methods limit precision in physical features displayed. This map is for illustrative purpose only, and is not suitable for parcel-specific decision making. The parcels contained herein are not intended to represent surveyed data. Site-specific studies are required to develop parcel-specific conclusions. Assessor's parcel data are current as of April 30, 2009. For more current parcel data consult the County of Sonoma Assessor's Office.

No part of this map may be copied, reproduced, or transmitted in any form or by any means without written permission from the Permit and Resource Management Department (PRMD), County of Sonoma, California.

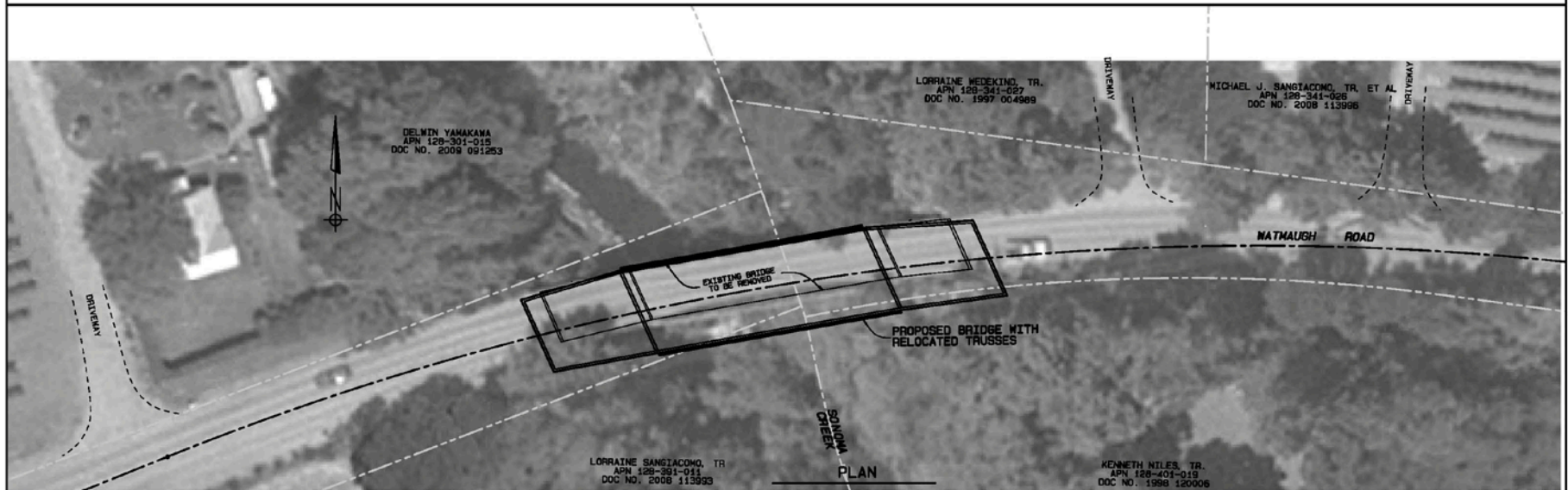
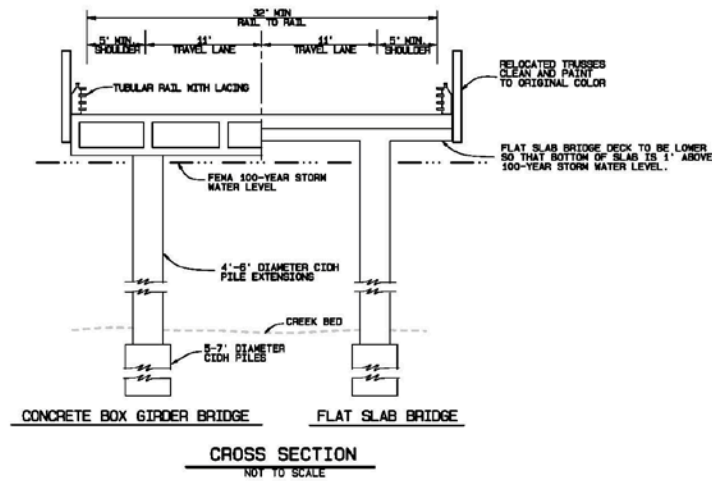


County of Sonoma
 Permit and Resource Management Department

2550 Ventura Avenue, Santa Rosa, California 95403
 707-565-1900 FAX 707-565-1103



FIGURE 1



**WATMAUGH ROAD BRIDGE OVER SONOMA CREEK
REPLACE BRIDGE IN EXISTING LOCATION**

Plan View of the Proposed Project Showing New Bridge in Current Alignment

FIGURE 2

The new bridge would be a two span pre-stressed concrete box girder or concrete slab bridge that would be approximately 185 feet in length. The new bridge roadway would be 32 feet wide, consisting of two 11-foot travel lanes and two 5-foot minimum width shoulders. The approach roadway width would also be widened to about 32 feet and taper until it conforms to the existing roadway at each end of the bridge.

To construct the new bridge, Cast in Drilled Hole (CIDH) concrete piers would be drilled into the banks of the creek at the location of the abutments and at the center pier, with the number and size of the CIDH piers to be determined prior to construction, based upon the results of a geotechnical report. Additional rock slope protection (RSP) may be included with the proposed bridge replacement. Prior to removal of the existing bridge, a debris catching platform would be constructed under the bridge. The platform would be supported by the existing structure over the water and would function to prevent concrete debris from falling into the creek during removal of the existing bridge deck.

The project would be constructed within one spring-summer construction season, except tree removal may be conducted during the previous fall and winter to avoid the migratory bird nesting season.

The existing bridge would be closed to traffic during construction. Alternate routes are available within the vicinity of Watmaugh Road to both the north and south, via Leveroni Road and State Highway 12/121. The maximum detour length would be approximately 5 miles.

Only minor amounts of additional right-of-way would be required to construct the project and temporary construction easements may be necessary. Relocation of existing utilities may also be needed.

Construction Methods

Access for construction vehicles to the channel bottom will likely be required to remove the existing piers, to build the new piers, and to construct the falsework for the new bridge. Access would likely be from the southeast side of the bridge and may require grading a road from the top of the bank down to the channel bottom. Some pruning of willows and other riparian species will be required for preparation of the access road; however, cutting will be kept to a minimum. Some trees will likely need to be cut and removed including California buckeye trees, black walnuts, and other trees on the path of the proposed access road. These trees will only be removed if absolutely necessary to construct the road. Willows and other plants that re-sprout will be cut at grade only if necessary, with no roots removed from the ground. The access road will be kept as narrow as possible to minimize disturbance to the banks and the riparian community that it supports. The access road would not need to be wider than 15-ft, (the approximate width of a large backhoe or excavator). To prevent soil, moved from the creation of the access road, from entering the creek; a fabric material may be laid down and angular gravel

temporarily placed over it. This will provide the necessary traction for the construction vehicles, while separating the soil from the gravel. In order to isolate the work area during construction, the creek will be temporarily diverted into culverts. This will be done by digging a shallow trench, and placing the culvert into the trench. Upstream and downstream diversion dams will be constructed by pushing imported clean river run gravel into place such that it will not trap fish. To trap larger particles suspended in the water column, filter fabric will be placed on the face of the downstream diversion dam. Immediately following the completion of the diversion system, all fish trapped in the dewatered part of the stream will be collected by a qualified and permitted individual and moved downstream of the work area. Following fish capture and relocation, gravel will be placed over the culverts between the two diversion dams to create a flat work surface. The total approximate length of the diversion will be about 120 ft.

The rock slope protection that exists at Pier 2 will be replaced after construction is completed and additional RSP may be placed, if necessary, to protect it from erosion. At the diversion, culverts will be removed and notches will be dug in the upstream and downstream diversion dams to allow the creek flow to return to its approximate previous channel. In order to prevent the material from the sediment stilling basin from entering the river, during future high water flows, following construction, all of the sediment in the sediment stilling basin will be removed and disposed of outside the river channel in a permitted manner. Following sediment removal the basin will be re-graded with the stockpiled excavated gravel to match the surrounding topography.

Following construction, the access down the bank, and other disturbed areas, will be re-graded to match existing topography. The gravel used to create the access road will be removed along with the fabric and the soil will be used to re-grade the access road to approximate preexisting topography. Replanting with native species will be done if plants cut at grade do not re-sprout. Appropriate erosion control methods will be implemented on the bank graded for the access road.

Equipment

The following list of equipment will likely be used to construct the proposed project:

Large Crane	Dump Trucks	Workers Vehicles
Small Crane	Bottom Dump	Fork Lift Equipment
Backhoe Loader	Gravel Trucks	Service Trucks
Dozer	Pavers	Tanker Truck
Demolition Hammer(s)	Water Truck	Portable Tank(s)
Concrete Pumper Truck	Flat Bed Trucks	
Bridge Deck Screed	Pick Up Trucks	
Man lift(s)		
Grader Compactor		

SECTION 4 - SUMMARY OF THE INITIAL STUDY

4.1 INTRODUCTION

Section 15128 of the *CEQA Guidelines* states:

"An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Such a statement may be contained in an attached copy of an Initial Study." Per Section 15050(d) of the *CEQA Guidelines*, the County of Sonoma has identified that an EIR is required to be prepared for the proposed project. An Initial Study was prepared to facilitate the appropriate due diligence and full disclosure of potentially significant impacts that may be associated with the project.

A Draft Initial Study for the Watmaugh Road Bridge Replacement Project was presented to the Environmental Review Committee (ERC) on August 7, 2012. The Initial Study is included in this EIR as Appendix D. After reviewing the Draft Initial Study and considering testimony presented during the public meeting, the ERC determined that an EIR should be prepared for the proposed project to analyze aesthetics, cultural resources, land use and planning. The purpose of this section is to summarize the Initial Study, revise it as necessary, and identify the issues that the ERC requested be analyzed in an EIR.

All elements in the Initial Study, other than aesthetics, cultural resources, and land use and planning, were identified as having either “No Impact”, “Less Than Significant Impact”, or “Potentially Significant Unless Mitigated” as summarized below.

The Initial Study indicates that the proposed project could cause "potentially significant impacts" to aesthetics, cultural resources, and land use and planning. Impacts within these categories are analyzed in this EIR pursuant to the direction provided by the ERC.

4.2 NO PROJECT IMPACTS

The Initial Study identified no project impacts related to the following:

1. Aesthetics, 1.b - The Initial Study determined that the project would not have a substantial impact to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway because the project is not located near a state scenic highway.
2. Aesthetics, 1.d - The Initial Study determined that the project would not have the potential to create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

3. Agricultural and Forest Resources, 2.a through 2.e - The Initial Study determined that the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), would not conflict with existing zoning for agricultural use or timber production, or a Williamson Act contract, and would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land.
4. Air Quality, 3.a - The Initial Study determined that the project does not have the potential to conflict with or obstruct implementation of the applicable air quality plan because the proposed bridge replacement would not add additional travel lanes and would operate at, or less than, the current criteria pollutant emission levels associated with the existing Watmaugh bridge.
5. Air Quality, 3.b - The Initial Study determined that because the project will not cause significant long-term emissions of criteria pollutants, the project will not violate any air quality standard.
6. Biological Resources 4.f - The Initial Study determined that the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
7. Cultural Resources, 5.c - The Initial Study determined that the project would not have the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature because unknown paleontological resources would not occur on the site.
8. Geology and Soils, 6.a - The Initial Study determined that the project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence. The County's 2020 General Plan Public Safety Element designates the project vicinity as subject to existing earthquake faults, high liquefaction, and very strong seismic shaking. However, because the replacement bridge would be constructed to current earthquake standards, no impact resulting from seismic activity is anticipated. In addition, the Initial Study determined that the project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.
9. Geology and Soils, 6.e - The Initial Study determined that the proposed project would not generate waste water or sewage; consequently, the need for septic tanks and waste water disposal systems are not anticipated.

10. Greenhouse Gas Emissions, 7.b – The Initial Study determined that the project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (GHGs).
11. Hazards and Hazardous Materials, 8.c - The Initial Study determined that the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
12. Hazards and Hazardous Materials, 8.d - The Initial Study determined that the project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
13. Hazards and Hazardous Materials, 8.e - The Initial Study determined that the project would not be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the project would not result in a safety hazard for people residing or working in the project area.
14. Hazards and Hazardous Materials, 8.f - The Initial Study determined that the project site is not located within the vicinity of a private airstrip, and therefore the project would not result in a safety hazard (related to a private airstrip) for people residing or working in the project area.
15. Hazards and Hazardous Materials, 8.g - The Initial Study determined that the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
16. Hazards and Hazardous Materials, 8.h - The Initial Study determined that the project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. This includes where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands because, although the property is adjacent to grasslands and open space, the threat posed by wildland fires is minimal.
17. Hydrology and Water Quality, 9.b - The Initial Study determined that the project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The project does not propose to use groundwater.
18. Hydrology and Water Quality, 9.g - The Initial Study determined that the project would not place housing within a 100-year hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

19. Hydrology and Water Quality, 9.j - The Initial Study determined that the project would not be inundated by seiche, tsunami, or mudflow. The likelihood of a tsunami or seiche occurring is rare due to the distance from the open ocean. Additionally, the project is located on relatively flat ground away from surrounding hillsides, and therefore it is not likely that the project site would be inundated by mudflow.
20. Land Use and Planning, 10.a - The Initial Study determined that the project would not physically divide an established community.
21. Land Use and Planning, 10.c - The Initial Study determined that the project would not conflict with any applicable habitat conservation plan or natural community conservation plan.
22. Mineral Resources, 11.a - The Initial Study determined that the project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
23. Mineral Resources, 11.b - The Initial Study determined that the project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.
24. Noise, 12.b - The Initial Study determined that while the project will require drilling into the soil for CIDH piles, which is likely to create some minor very local ground borne vibration and noise. Generation of ground borne vibration at the project will be minor and temporary and is not expected to significantly affect the nearest sensitive receptors.
25. Noise, 12.c - The Initial Study determined that no sensitive receptors are expected to be located within the noise contours that would create significant noise impacts over and beyond what currently exists adjacent to the existing bridge. Therefore, no impact resulting from project generated noise levels are anticipated.
26. Noise, 12.e - The Initial Study determined that the project is not located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, nor would the project expose people residing or working in the project area to excessive noise levels.
27. Noise, 12.f - The Initial Study determined that the project is not located within the vicinity of a private airstrip; and that the project would not expose people residing or working in the project area to excessive noise levels.
28. Population and Housing, 13.a - The Initial Study determined that the project would not induce substantial population growth in an area, either directly or indirectly.

29. Population and Housing, 13.b - The Initial Study determined that the project would not displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere.
30. Population and Housing, 13.c - The Initial Study determined that the project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.
31. Public Services, 14.a - The Initial Study determined that the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives for schools and parks.
32. Recreation, 15.a - The Initial Study determined that the project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
33. Recreation, 15.b - The Initial Study determined that the project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.
34. Transportation/Traffic, 16.b - The Initial Study determined that the project would have no conflict or impact with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways is anticipated with the implementation of the proposed project
35. Transportation/Traffic, 16.c - The Initial Study determined that the project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
36. Transportation/Traffic, 16.f – The Initial Study determined that the project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.
37. Utilities and Service Systems, 17.a - The Initial Study determined that the project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board because the project does not require wastewater treatment.

38. Utilities and Service Systems, 17.b - The Initial Study determined that the project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
39. Utilities and Service Systems, 17.c - The Initial Study determined that the project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities.
40. Utilities and Service Systems, 17.d - The Initial Study determined that the project would have sufficient water supplies available to serve the project.
41. Utilities and Service Systems, 17.e - The Initial Study determined that the project would not require a capacity adequacy determination by an outside wastewater treatment provider.
42. Utilities and Service Systems, 17.f - The Initial Study determined that the project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
43. Utilities and Service Systems, 17.g - The Initial Study determined that the project would comply with federal, state, and local statutes and regulations related to solid waste.

4.3 LESS-THAN-SIGNIFICANT IMPACTS

Less-than-significant impacts were identified in the Initial Study related to air quality, greenhouse gas emissions, public services, and utilities and service systems. (See discussion in Appendix D.) In addition, new potential impacts that were identified subsequent to the preparation of the Initial Study are discussed below.

1. Air Quality, 3.e - The Initial Study determined that the project could result in less-than-significant odor generation during project construction.
2. Geology and Soils, 6.c - The Initial Study determined that impacts resulting from being located on geologic units or soils that are unstable would be less than significant, as described in 6.a and 6.b.
3. Geology and Soils, 6.d - The Initial Study determined that the project would not create substantial impacts to life or property from being located on expansive soils.
4. Greenhouse Gas Emissions, 7.a - The Initial Study determined that the replacement of the existing bridge should generate the same baseline GHG emission levels because no

additional travel lanes are proposed and no traffic controls (e.g., stop signs or signalization) are proposed. Watmaugh Road would continue to operate as a “Rural Minor Collector” with a Level-of-Service (LOS) of “A”, or better, as specified in the Sonoma County General Plan 2020 Circulation and Transit Element. The estimated total Average Daily Trips (ADTs) of 3,777 (County of Sonoma Traffic Volumes - January 2008 - December 2010) along Watmaugh Road are expected not to change as a result of the proposed project. Consequently, the proposed bridge replacement would operate at, or less than, current GHG emission levels associated with the existing bridge on Watmaugh Road. Based on these assumptions and the fact that any impact would be related to the temporary closing of the bridge, a less-than-significant impact to GHGs is anticipated with the proposed bridge replacement project.

5. Hydrology and Water Quality, 9.c - The Initial Study determined that drainage patterns in the project area will be slightly altered by relocating the impermeable roadway surfaces, but the changes will not cause substantial erosion. The potential for significant erosion from the project stems from the removal of vegetative cover and ground disturbance associated with construction, not the relocation of the roadways. See items 4.b and 6.b for the discussion of the impacts and mitigation measures associated with erosion. With the incorporation of these mitigation measures, a less-than-significant impact from erosion is anticipated.
6. Hydrology and Water Quality, 9.d - The Initial Study determined that the new bridge deck would be approximately 30 inches higher than the existing bridge deck to allow the new bottom or soffit of the concrete box structure to be one foot above the FEMA Flood Profile 100 year storm water surface. The drainage patterns in the project area may be slightly altered as a result of relocating the approaches to the replaced bridge, but the changes will not increase surface runoff and cause flooding. Flooding may intermittently occur at the project site after large storm events, as it does currently, and the minor alteration of drainage patterns associated with the project will not add to the frequency of flooding at the project site. Therefore, a less-than-significant impact caused by flooding is anticipated with the implementation of the proposed project.
7. Hydrology and Water Quality, 9.h - The Initial Study determined that the project would not impede flows as much as the existing bridge because the piers supporting the bridge would be relocated out of the flowing water. By having fewer piers extending down into the channel, and the dual span centered outside of the thalweg (deepest line of the channel) of Sonoma Creek, the new bridge will reduce the amount of debris that can become obstructed under the bridge. Also, the new bridge will be approximately 1 ft higher in elevation than the existing bridge, which may result in fewer closures of the crossing. The new bridge deck will be approximately 30 inches higher than the existing bridge deck to allow the new concrete box structure to be one foot above the FEMA Flood Profile 100 year storm water surface. Although some impedance of flood flows

would remain, the proposed project would likely improve upon any potential flooding problem during future 100-year floods. Therefore, less-than-significant impacts from 100-year floods are anticipated from the proposed replacement bridge.

8. Hydrology and Water Quality, 9.i - The Initial Study determined that the project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam because the new bridge soffit would be at least one foot above the 100 year flood elevation.
9. Noise, 12.a - The Initial Study determined that the project no sensitive receptors are expected to be located within the noise contours that would create significant noise impacts over and beyond what currently exists adjacent to the existing bridge. Therefore, less than significant impacts resulting from project generated noise levels are anticipated.

4.4 LESS-THAN-SIGNIFICANT IMPACTS WITH MITIGATION

The following summarizes potential impacts that were identified in the Initial Study as potentially significant but after mitigation measures were included are found to be at a level that is considered to be less than significant.

1. Air Quality 3.c- The Initial Study determined that the project has the potential to result in a cumulatively considerable net increase of any criteria pollutant. The Bay Area is considered a non-attainment area for ozone under both the Federal Clean Air Act and the California Clean Air Act. The Bay Area is also considered a non-attainment area for PM10 under the California Clean Air Act. Although ozone and small particulate (PM10) concentrations are almost always below air quality standards in the Sonoma Valley, emissions from the area could be contributing to air quality violations in other parts of the Bay Area. The proposed project has the potential to violate applicable federal or state ambient air quality standards due to PM10 (fine particulate matter) in the form of dust emissions from the grading during construction of the proposed project. To mitigate this impact the following mitigation measures are proposed:

Water or dust palliative shall be sprayed on unpaved construction and staging areas during construction as directed by the County. Trucks hauling soil, sand and other loose materials over public roads shall cover the loads, or shall keep the loads at least two feet below the level of the sides of the container, or shall wet the load sufficiently to prevent dust emissions. Paved roads shall be swept as needed to remove soil that has been carried onto them from the project site. Water or other dust palliative shall be applied to stockpiles of soil as needed to control dust.

2. Air Quality, 3.d - The Initial Study determined that the project has the potential to expose sensitive receptors to substantial pollutant concentrations as construction equipment may

generate dust. The mitigation measures in 3.c in the Initial Study will reduce this impact to less than significant.

3. Biological Resources 4.a - The Initial Study determined that the project has the potential to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Special-status animal species were identified as having the potential to occur on or within the vicinity of the project site. Additionally, replacement of the Watmaugh Road Bridge could potentially impact these identified species including steelhead and California freshwater shrimp and their habitats. To mitigate these impacts the following mitigation measures are proposed:

Construction dates for work in the flowing water are June 15 to October 15. Work outside the flowing water can occur May 15th until October 15.

The County shall require that a qualified and permitted individual remove any fishes, turtles and other significant aquatic species from Sonoma Creek in the project area immediately prior to installation of the work pad and again from the confined pool created during work pad construction. The aquatic species removed from the project area are to be released at an available location, with similar habitat, outside of the work area.

Access for work under the bridge will be from the southeast quadrant. This will require grading a road down to the channel bottom, avoiding as much as possible the trees on the bank.

Only the minimum amount of vegetation will be pruned or removed that is necessary to construct the project. All trees and shrubs that must be removed will be cut at or just below grade to facilitate plant regrowth.

The diversion dams will be constructed with imported clean river-run material, with a filter fabric placed on the face of the downstream diversion dam. Gravel placed in the creek for any reason will be the minimum necessary.

The culverts used for the work pad will be sized in such a manner as to not significantly back-up water upstream or significantly increase the velocity of the water at the outlet. Culvert capacity will be designed to sufficiently maintain the preexisting creek velocity or 1.3 feet per second, whichever is greater, during expected normal flow.

A sediment stilling basin will be constructed upstream from the bridge if necessary to dewater the work area at pier 2. No pruning or vegetation removal will be allowed during excavation for the sediment stilling basin. The excavated material will be

stockpiled for later filling in of the basin following project completion. If a sediment stilling basin is not used, all water collected from the CIDH drilling operations will be pumped upslope out of the channel and either stored in tanks to be hauled off site, or disposed on land in such a manner that the water will not flow back into Sonoma Creek.

The County will require the contractor to use a drilling mud and slurry seal that is non-toxic to aquatic life. If it is determined that a non-toxic material for either of these applications is not feasible for this project, then all drilling muds and fluid within all drilled holes will be contained on site in tanks, removed from the project area, and disposed of in a permitted manner. Following construction, all of the sediment accumulated in the stilling basin will be removed and disposed of in a permitted manner.

The County will not allow any motorized equipment to be left within the Sonoma Creek Channel (top of bank to top of bank) overnight, unless a container or similar method is securely in-place beneath the equipment to capture any fluid leakage. All contained fluids will be disposed of in a permitted manner.

Following construction, the sediment stilling basin will be filled with previously excavated material and re-graded to match existing topography. The access road down the bank will be re-graded to match pre-project topography, with erosion control measures applied to the slope. All other disturbed areas will be regraded to match existing topography. Appropriate erosion control measures will be used on all disturbed areas to minimize the potential for erosion, these may include hydro seeding, erosion control blankets, or other appropriate BMPs based upon the conditions of the site.

All excavated materials will be removed from the creek channel and disposed of in a permitted manner. No equipment, including concrete trucks, will be washed in the creek or in a place where wash water could drain into the creek.

Water that comes into contact with wet concrete and has a pH greater than 9.0 must be pumped to a truck or by hose for upland disposal or treatment (not within the banks of any waterway).

All equipment refueling and maintenance will occur outside the creek channel (bank to bank). In order to minimize the potential for spills and leaks of fluids from all other equipment working within the creek channel, an Accidental Spill Prevention and Cleanup Plan will be prepared. This plan will include requiring spill control absorbent material to be present on site and available at all times.

There shall be no equipment operated within the flowing water of Sonoma Creek. Following project construction, all equipment and materials will be removed from the creek.

4. Biological Resources, 4.b - The Initial Study determined that the project has the potential to have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. The project will require the removal of riparian vegetation for the existing bridge and construction of the new bridge. Removal of vegetation must comply with General Plan Policy OSRC-8e. To mitigate impacts to riparian habitat the following mitigation measures are proposed:

Only the minimum amount of vegetation shall be pruned or removed that is necessary to construct the project. Where possible, vegetation shall be tied back in lieu of cutting. Native vegetation that must be removed shall be cut at or above grade to facilitate re-growth. Any pruning that is done, including for utility line clearance, shall conform to the American National Standard for Tree Care Operation Tree, Shrub, and Other Woody Plant Maintenance Standard Practices, Pruning (ANSI A300 Part 1)-2008 Pruning, and the companion publication Best Management Practices: Tree pruning (ISA 2008). Roots shall only be unearthed when necessary.

All Sudden Oak Death host species plants and plant parts that are pruned or cut at the project site as part of this project must be disposed of within the limits of Sonoma County. Foliage that is chipped on site shall not be placed where it can enter Sonoma Creek.

The standard construction contract language requires the contractor to comply with all laws and regulations (Caltrans Standard Specifications, section 7-1.01). The contractor shall be made aware that, If there is removal of any trees on private property in conjunction with this project, it shall be in accordance with the following: 1) the County Tree Protection and Replacement Ordinance; 2) the Sonoma County Valley Oak Stewardship Guidelines for valley oak trees removed within the Valley Oak Habitat combining district; and 3) the Heritage or Landmark Tree Ordinance. Enforcement of this measure shall be through a combination of the DTPW and PRMD staff.

5. Biological Resources, 4.c - The Initial Study determined that the project has the potential to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means because the construction of the new bridge will use Cast in Drilled Hole (CIDH) concrete piers drilled into the banks of the creek at the location of the abutments and at the center pier. The project may generate surplus soils for disposal off-site, and improper disposal of this material could affect off-site wetlands or other sensitive habitat. To mitigate these impacts the following mitigation measures are proposed:

All surplus soils that cannot be used on the project site shall be disposed of at an acceptable disposal site. If any areas outside the project site are used for disposal or stockpiling of soil or other materials, the contractor shall be required to demonstrate that the site has all the required permits, including, if applicable, a grading permit. The contractor shall notify the California Department of Fish and Game of the intent to use the site, and the Sonoma County Permit and Resource Management Department to determine if a grading permit is required. The contractor shall be required to provide evidence to the County that the site does not affect wetlands under the jurisdiction of the Army Corps of Engineers, or that the site has the appropriate permit from the Army Corps of Engineers. Surplus concrete rubble or pavement shall either be disposed of at an acceptable and legally permitted disposal site or taken to a permitted concrete and/or asphalt recycling facility.

6. Biological Resources, 4.d - The Initial Study determined that the project has the potential to interfere substantially with the movement of native resident or migratory fish, wildlife species, established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Specifically, tree removal may impact nesting birds along Sonoma Creek and bridge work and removal may impact nesting barn swallows. The following mitigation measure will reduce the impact to a level that is less than significant:

The County will only allow trees to be removed from the project site after September 1, and before February 15 of the following year, when bird nesting is most likely avoided, unless a qualified biologist has inspected the site and determined that the tree removal will not affect nesting birds. Beginning March 1st, the County shall install a bird barrier netting or other material to the underside of the entire bridge structure sufficient to prevent birds from nesting underneath areas where disturbance is to occur. The bird barrier shall be inspected every two weeks and repairs made as needed from installation until September 1st or until no longer needed. The netting shall be removed as needed to construct the project. If the project is not completed during the construction season following installation of the barrier, this mitigation will be implemented again beginning March 1st of the next year.

7. Biological Resources, 4.e - The Initial Study determined that the project has the potential to conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance. The proposed pier for the project is located in a Biotic Resource Overlay Zone, which is designed to protect biological resources. The Sonoma County Official Zoning Database indicates that the Zoning Districts adjacent to the project site include Biotic Resources (BR) and Valley Oak Habitat (VOH). The VOH extends along Watmaugh Road as far east as Highway 12; dense riparian habitat borders the banks of the creek near the project site forming the BR. Because the proposed bridge replacement would be located generally within the existing ROW, disturbance of the

existing oaks and riparian habitat would be minimized. Construction access would be from the southeast side of the bridge. This will require grading a road from the tip of the bank down to the channel bottom. Some pruning of willows and other riparian species will be required for preparation of the access road; however, cutting will be kept to a minimum. There are some California buckeye trees, black walnuts, and other trees on the path of the proposed access road that will likely not re-sprout if their main trunk is cut. Mitigation measures in 4.a, 4.b of the Initial Study and the replanting mitigation in Section 5A (Aesthetics) of this EIR will reduce the impacts to a level that is less than significant.

8. Cultural Resources, 5.b - The Initial Study determined that the project has the potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. There are no known archaeological resources on the site, but the project could uncover such materials during construction. The following mitigation measure will mitigate this impact to a level that is less than significant:

If archaeological materials are discovered during project construction, construction will cease in the immediate vicinity of the find until a qualified archaeologist is consulted to determine the significance of the find, and has recommended appropriate measures to protect the resource. Further disturbance of the resource will not be allowed until those recommendations deemed appropriate by the County have been implemented.

9. Cultural Resources, 5.d - The Initial Study determined that the project has the potential to disturb human remains, including those interred outside of formal cemeteries because unknown resources could be encountered during project construction. To mitigate this potential impact the following mitigation measure is proposed:

If human remains are discovered at the project site during construction, work at the specific construction site at which the remains have been uncovered shall be suspended, and the County coroner shall be immediately notified. If the remains are determined by a qualified archaeologist and/or paleontologist to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains.

10. Geology and Soils, 6.b - The Initial Study determined that there may be substantial soil erosion or the loss of topsoil if the proposed project construction occurs during the winter months and that it is possible that storm-water could carry disturbed soil directly into Sonoma Creek. The following mitigations will reduce this impact to a level of insignificance:

If construction of new or filling of existing roadside ditches is to occur after October 1, the area worked on shall be isolated by straw wattles or gravel dams placed in the ditch

up and downstream of the drainage ditches being worked on to filter water and prevent sediment laden water from traveling out of the work area. Following completion of all ditch work, the straw wattles or gravel shall be removed and straw shall be placed on the banks of all new roadside ditches within the project limits.

Following construction or by October 15 of any construction year, the County shall require that all disturbed areas within the creek channel (top of bank to top of bank) shall be regraded to match adjacent contours. Jute mesh type or equivalent matting shall be placed over disturbed soils, and installed per the manufacturer's instructions. This matting shall extend a minimum of two feet beyond the edge of the disturbed areas, and shall be installed from the toe of slope up beyond the top of bank on both sides, and where soil has been replaced to eliminate the access roads. This matting shall have either no plastic incorporated into it, or any incorporated plastic shall be a photo-degradable type which breaks down in 1 - 2 years. In no case shall the entire mat be constructed of plastic. In addition, fiber rolls shall be fastened along the top of bank on both sides of the channel to intercept sheet flows of water from upland areas. Substitution of materials or erosion control methods shall require prior approval from PRMD and DTPW.

The project site shall be inspected following the first heavy rain, during the middle of the rainy season and at the end of the rainy season following construction. During each visit, areas of significant erosion or erosion control device failure shall be noted and appropriate remedial actions taken.

By October 1, a wood fiber erosion control blanket shall be applied to the disturbed areas up and downstream of the new drainage ditches along Watmaugh Road. The blanket would cover from two feet beyond the top of bank on both sides of the ditch and would cover the entire bottom and banks of the ditch. Installation would be per the Manual of Standards for Erosion and Sediment Control Measures (Association of Bay Area Governments, May 1995) or the method recommended by the manufacturer. This blanket would have either no plastic incorporated into it, or, if the blanket does have plastic in it, the plastic would be a photo-degradable type which breaks down in 1 - 2 years.)

Following construction or by October 31 of any construction year, the County shall require that all disturbed areas outside the creek channel will be hydroseeded. The hydro-seed mix shall not contain fertilizer.

Winter work activities (after October 31) may occur outside the channel but vehicular access shall be restricted to previously paved or rocked surfaces, and work shall include only those activities which do not result in the disturbance of new soil.

All stockpiled materials and debris shall be removed from the site on or before October 31 of any construction year. Substitution of materials or construction methods shall require prior approval from PRMD and DTPW.

The project site shall be inspected by County staff after storm events that produce 1 inch of rain or greater within 24 hour period in the Sonoma Valley area. During every inspection, areas of significant erosion or erosion control device failure shall be noted and appropriate remedial actions will be taken as soon as practical. If erosion control measures appear to be effective for three consecutive site inspections following 1-inch storm events, then site inspections shall only be required following storm events that result in 2 inches of rain, or greater, within a 24-hour period in the Sonoma area. At the end of the rainy season, County staff shall reinspect the site and evaluate the effectiveness of the erosion control measures that were used. If there were problem areas at the site, recommendations shall be made to improve methods used in subsequent projects.

11. Hazards and Hazardous Materials, 8.a - The Initial Study determined that the project has the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Project construction will require use of fuels and other hazardous materials. Improper storage or handling of these materials could result in spills. The project staging area would be located within a closed portion of the existing ROW during construction. Although no significant biotic resources, including creeks and streams, cross the proposed staging area, the proposed bridge replacement would cross Sonoma Creek. Potential impacts from spills into the creek can be reduced to a less-than-significant level by requiring standard approved construction methods for handling hazardous materials.
12. Hazards and Hazardous Materials, 8.b - The Initial Study determined that the project has the potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The entire project site is known to flood. Therefore, it is possible that chemical storage containers (e.g., fuel containers, chemical toilets) could become inundated by floodwaters and result in a discharge of chemicals into the creek, thereby affecting aquatic life. The following mitigation measure will reduce this potential impact to a level considered to be less than significant:

At any time during the construction year that work is temporarily suspended due to potential flooding of the project site, all storage containers containing hazardous materials, including fuel, shall be removed from the project site until work is resumed. All chemical toilets shall be on trailers (or otherwise mobile) and shall be moved outside the FEMA 100-yr floodplain along with construction equipment until work is resumed.

13. Hydrology and Water Quality, 9.a - The Initial Study determined that the project could have significant impacts to water quality, however permits from the Regional Water Quality Control Board, Army Corps of Engineers, California Department of Fish and Game, and Sonoma County Permit and Resource Management Department will all be obtained prior to project implementation. Compliance with the requirements set forth by these permits, along with Mitigation Measures contained in Sections 4 and 6 of the Initial Study will ensure that water quality standards are not violated. Therefore, potentially significant impacts resulting from the proposed project would be reduced to less-than-significant levels with the incorporation of these mitigation measures.
14. Hydrology and Water Quality, 9.e - The Initial Study determined that the project may create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. The washing of equipment in areas where the water could flow into the creek is a potentially significant impact. The project would be required to provide drainage swales and/or other Best Management Practices along the perimeter of the project to filter and retain contaminants that are present in any storm water before they enter the drainage ditches or Sonoma Creek.
15. Hydrology and Water Quality, 9.f - The Initial Study determined that construction will require use of fuels and other hazardous materials. Improper storage or handling of these materials could result in spills that will substantially degrade water quality. Since the staging area for the project will be immediately adjacent to the channel, extra precautions need to be taken to ensure that the use and storage of hazardous materials do not present potential threats to the water quality of Sonoma Creek. Water quality may also be degraded from water used to wash concrete trucks if it is allowed to run directly into the channel of Sonoma Creek, or if drilling muds or spoils were allowed to enter the creek. The following mitigation measures will reduce project impacts to a level less than significant:

The County shall not allow any equipment to be operated in the flowing waters of Sonoma Creek at any time. The construction contract shall require that any storage of flammable liquids be in compliance with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification (or the functional equivalent) for the protection of surface waters. In the event of a spill of hazardous materials, the contractor shall immediately call the emergency number 9-1-1 to report the spill, and shall take appropriate actions to contain the spill to prevent further migration of the hazardous material to the surface waters of Sonoma Creek. The County shall not allow any motorized equipment (besides the stationary crane drill rig attached) to be left within the Sonoma Creek channel (top of bank to top of bank) overnight. A container or similar method shall be securely placed beneath the crane to catch any fluid leakage. All contained fluids shall be disposed of in a permitted manner. To minimize fluid leaks

during operation, refueling, and maintenance of stationary equipment (crane with drill rig attached), spill control absorbent material shall be in place underneath this equipment at all times to capture potential leaks. All refueling and maintenance of equipment (other than the stationary crane) shall occur outside the channel of Sonoma Creek (top of bank to top of bank). Receptacles containing fuel, oil, or any other substance that may adversely affect aquatic resources shall be stored outside of the channel. Any hazardous chemical spills shall be cleaned up immediately. Prior to construction, the contractor shall be required to prepare an Accidental Spill Prevention and Cleanup Plan. This plan shall include requiring spill control absorbent material to be present on site and available at all times.

No equipment, including concrete trucks, shall be washed within the channel of the creek, or where wash water could flow into the channel. Prior to project construction, the contractor shall establish a concrete washout area for concrete trucks in a location where wash water will not enter Sonoma Creek. The washout area shall follow the practices outlined in the San Francisco Bay Regional Water Quality Control Board Erosion and Sediment Control Field Manual (revised 2002) or equivalent guidelines. Substitution of the designated concrete washout area or methods shall require prior approval from PRMD and the DTPW.

If drilling of CIDH piles is conducted, the County shall require the contractor to use a drilling mud and slurry seal that is non-toxic to aquatic life for all drilling activities. All drilling muds and fluid within all drilled holes shall be contained on site in tanks, removed from the project area, and disposed of in a permitted manner.

If drilling of CIDH piles is conducted, the County shall require that all spoils materials from drilled pier holes be removed from the Sonoma Creek channel and adjacent FEMA 100-yr floodplain by October 15, and disposed of in a permitted manner.

16. Noise, 12.d - The Initial Study determined that construction activities could create significant noise impacts. The following mitigation measure will reduce the noise impact from construction activities and hauling to less than significant:

All internal combustion engines used during construction of this project will be operated with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code. Except for actions taken to prevent an emergency, or to deal with an existing emergency, all construction activities shall be restricted to the hours of 7:00 am and 7:00 pm on weekdays and 9:00 am and 5:00 pm on Saturday's and no work on Sunday's or holidays. Only work that does not require motorized vehicles or power equipment shall be allowed on Sundays or holidays (1). If work outside the times specified above becomes necessary due to an emergency, the resident engineer shall notify the PRMD Environmental Review Division as soon as practical.

17. Transportation/Traffic, 16.a - The Initial Study determined that the existing traffic volumes crossing Watmaugh Bridge would not be able to use the Watmaugh bridge during construction of the replacement bridge and during construction and closure of the bridge there is a potential for lengthy delays. The following mitigation measures will reduce these impacts to a level of insignificance:

Existing traffic volumes crossing Watmaugh Bridge shall be temporarily detoured to Leveroni Bridge until construction of the replacement bridge on Watmaugh Road is completed. In addition, if lengthy delays are anticipated, signs shall be placed at all entrances to the project site and on major intersecting roads, including Leveroni Bridge to notify motorists that traffic will be subject to delay.

18. Transportation/Traffic, 16.d - The Initial Study determined that the proposed replacement bridge would not include hazardous design features. Approaches on both sides of the proposed bridge would be realigned to improve the flow of traffic and the line-of-sight for the traveling public. While that is the case, temporary traffic hazards could arise during construction and, therefore, necessitate traffic control during the construction phase of the proposed project. The following mitigation measures will reduce these impacts to a level of insignificance:

Traffic safety guidelines compatible with Section 12 of the Caltrans Standard Specifications, “Construction Area Traffic Control Devices” shall be followed during

construction. Project plans and specifications shall also require that adequate signing and other precautions for public safety be provided during project.

19. Transportation/Traffic, 16.e - The Initial Study determined that the proposed Construction activities may result in traffic delays possibly slowing emergency response vehicles or restricting access to residences or nearby businesses. This is a short term construction related impact that will cease upon project completion. The existing bridge would be closed to traffic during construction. Alternate routes are available within the vicinity of Watmaugh Road to both the north and south, via Leveroni Road and State Highway 12/121. The maximum detour length would be approximately 5 miles. The following mitigation measure will reduce impacts to a less than significant level:

Local emergency services shall be notified by DTPW prior to construction to inform them of traffic delays, proposed construction schedule, and detour routes. The County shall require the contractor to provide for passage of emergency vehicles to the project site and neighboring properties at all times.

4.5 POTENTIALLY SIGNIFICANT IMPACTS REQUIRING FURTHER ANALYSIS

The following summarizes potential impacts that were identified in the Initial Study as potentially significant and are analyzed in this EIR.

1. Aesthetics, 1.a - The Initial Study determined that the proposed bridge replacement would require the removal of existing mature trees that would likely impact existing scenic vistas. The proposed tree replacement shall include native oaks, California bay, and other native species planted, irrigated and maintained within the public ROW along Watmaugh Road and Sonoma Creek that are compatible with existing riparian setting. The replacement of the existing bridge with new materials could adversely impact the visual quality of the surrounding rural community. The proposed replacement bridge design shall include the truss elements found on the existing bridge on both sides of the proposed bridge. In addition, existing guard rails, soffits, and other visually prominent elements of the existing bridge shall be incorporated into the proposed bridge to the degree feasible without compromising the structural integrity of project. Where utilizing existing bridge components would not be practical, new materials shall be treated to blend with reused bridge elements and the surrounding.
2. Cultural Resources, 5.a - The Initial Study determined that the project would cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. The Watmaugh Road Bridge is one of nineteen extant metal truss bridges and one of two remaining fixed Warren pony truss bridges in Sonoma County. On July 28, 1981 under Resolution #69974, the Sonoma County Board of Supervisors designated the Watmaugh Road Bridge as Sonoma County Historic Landmark #103. An “historical resource” (i.e., significant historic resource) under CEQA is an historic resource which meets one or more of the criteria for eligibility for inclusion on the National Register of Historic Places or the California Register of Historical Resources, or which meets the criteria for eligibility for inclusion on a local historic resources register or inventory. As the Watmaugh Road Bridge is a Sonoma County Historic Landmark, it is an historical resource under CEQA. Because the proposed project would remove and replace an existing bridge designated as historically significant a potentially significant adverse impact to historical resources is anticipated.
3. Land Use and Planning, 10.b - The Initial Study determined that the project has the potential to conflict with applicable land use plans, policies, and regulations of the agencies with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. The existing bridge is zoned as a Historic District (HD) and is listed as a Sonoma County Landmark. The HD Zoning District (article 68) was established to protect those structures that serve as remainders of past years, provide significant examples of architectural styles of the past or are unique and irreplaceable

County assets. The HD District accomplishes these protections by requiring that any alterations or demolitions proposed to be made to a structure located within the HD District be reviewed for a recommendation to the Board of Supervisors by the Sonoma County Landmarks Commission. The standards that govern the Landmarks Commissions recommendations include procedures specifically established for the Historic Zoning District that the bridge is located within. In this case, the Board of Supervisors established specific procedures to be used for review of projects within the Historic Bridge District. The purpose is to afford long term protection of these bridges and ensure that modifications are not detrimental to their historic integrity. While the emphasis must be on preservation, the need for safe and serviceable transportation infrastructure required that some provision be made for emergency repairs without the need for review by the Landmarks Commission. In addition, before a bridge may be removed, the procedures require that an initial study be prepared and alternatives to removal be considered. Several meetings have taken place with the Landmarks Commission over the past two-years to discuss this project and various project alternatives. On July 24, 2012, the Sonoma County Landmarks Commission reviewed an Initial Study, a set of alternatives and other materials that were prepared per the required procedures for the proposed bridge replacement project. The conclusion made by the Commission was that they recommend denial of the proposed bridge replacement project in part because the loss of the bridge would conflict with the HD zoning and the replacement project may result in the need to rezone the site to remove the bridge from the HD Combining Zone and would be a potentially significant impact.

4.6 CORRECTIONS AND CLARIFICATIONS TO THE INITIAL STUDY

Aesthetics

The Initial Study determined that the project would not substantially degrade the existing visual character of the site and its surroundings with incorporation of mitigation (Aesthetics, 1.c.). However, impacts to the visual character of the site are further discussed in this EIR in Section 5A.

Traffic Section

As noted in the comment letter that was prepared by the Citizens for the Preservation of Sonoma Historic Bridges (CPSHB, August 22, 2012) discussing the Initial Study that was circulated with the Notice of Preparation on August 7, 2012, the Initial Study stated in the Setting Section that the roadway classification of Watmaugh Road is a Rural Major Collector when in fact it is designated in GP 2020 as a Rural Minor Collector (which was described accurately in the Transportation/Traffic Traffic Section and the balance of the document).

The CPSHB letter also addresses the traffic volumes and circulation structure within the vicinity of the proposed project. For clarification, based most recent data, the average daily traffic (ADT) on Watmaugh Road east of Arnold Drive is approximately 3671 vehicles. The AM peak hour traffic volumes on Watmaugh Road were 531 vehicles and PM peak hour traffic was 329 vehicles. The highest single lane traffic count was 391 east bound vehicles per hour at 8 AM (DTPW traffic count 5/14/2011). These data are well within the range of what was reported in the Initial Study and conclusions based upon them remain valid.

5.0 IMPACT SECTIONS

Format of the Analyses

This section of the EIR addresses in detail the interaction of the proposed project with its natural environment. Each area or topic of environmental concern that is addressed in this EIR is discussed using the following format:

Setting

This section includes a description of the existing physical and environmental conditions as regards the particular environmental factor under consideration (per *CEQA Guidelines* Section 15125).

Potential Impacts and Mitigations

This section begins with a list of the criteria that are used to determine impact significance. The criteria are based on the list of impacts typically considered significant as listed in the *CEQA Guidelines*. This section describes the possible significant impacts (per *CEQA Guidelines* Section 15126a and b).

Each impact is identified, described, and assessed. Following the discussion of each potentially significant impact is a listing of possible mitigation measures for that impact. CEQA requires mitigations only for impacts deemed significant. Nevertheless, this EIR occasionally does recommend additional mitigations even if the identified impact is not necessarily significant. Mitigations that include the words "shall," "will," or "must" are necessary to adequately mitigate potentially significant impacts. Mitigations using the words "should," "would," or "may" are recommended to further reduce the level of impact, but are not necessary to reduce the identified impacts to a level below significance. Finally, there is a determination of the significance level of the impact if the mitigations identified are implemented.

Cumulative Impacts

The EIR includes an analysis of potentially significant cumulative impacts. CEQA defines a cumulative impact as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative impact analysis is intended to describe the "incremental impact of the project when added to other, closely related past, present, or reasonably foreseeable probable future projects" and can result from "individually minor but collectively significant projects taking place over a period of time (*CEQA Guidelines* Section 15355). If the EIR determines the project's contribution to the impact is not "cumulatively considerable," then the impact is not considered significant.

The Cumulative impacts created by the project plus other development off the property are based on a cumulative growth scenario that incorporates both reasonably foreseeable development with the County. There are no other substantial reasonably foreseeable related projects proposed in the vicinity of the Watmaugh Road Bridge.

SECTION 5A - AESTHETICS

This section discusses the existing visual character and views of the project site and analyzes the potential for the proposed project to affect existing site character and views. Information for the discussion and subsequent analysis is drawn from site visits and preliminary project plans. This section also describes the visual context of the project site and identifies policies from the Sonoma County General Plan relevant to protection of aesthetic landscape resources and to visual impact assessment pursuant to CEQA.

5A.1 SETTING

Site Location

The project site is designated as a Scenic Landscape Unit in the Sonoma County 2020 General Plan Open Space and Resource Conservation Element. As the County urbanizes, the scenic landscape unit element assists in identifying areas that require the maintenance of openness for visual relief from urban densities/development. The scenic landscapes units have little capacity to absorb substantial development without significant visual impact and this element assists in retaining the largely open, scenic character of these landscapes. Therefore, the preservation of these scenic resources is important to the general welfare and quality of life for County residents while maintaining the tourists and agricultural economy within units designated.

The Sonoma County Official Zoning Database places the bridge into two combining districts: the bridge in the Historic District (HD) and Sonoma Creek in the F2 Floodplain. Zoning Districts adjacent to the project site include Biotic Resources (BR), Valley Oak Habitat (VOH) and Scenic Resource (SR) combining districts. The VOH extends along Watmaugh Road as far east as Highway 12; dense riparian habitat borders the banks of the creek near the project site. The SR extends along Watmaugh Road as far west as Arnold Drive.

Landform

The principal site landform is a relatively flat valley with Sonoma Creek running approximately north to south through the valley. In the central portion of the valley near the project site, from approximately Schellville to Glen Ellen, Sonoma Creek is characterized by an enlarged alluvial mainstem channel carrying a mixture of sand, gravel, and cobbles. The elevations within this portion of the Sonoma Valley range from about 40-120 feet above sea level.

Vegetation

The vegetation of the project site consists of riparian woodland that includes California bay, live oak, elderberry, and willows within the vicinity of Sonoma Creek, and a line of mature Monterey cypress to the east on Watmaugh Road and vineyards to the west. In visual terms, the existing

vegetation constitutes a pattern of broad expanses of woodlands with intermixed stands of shrubs and grasses. The stands of evergreen trees and shrubs remain a relatively constant green in color throughout the year, while the grass turns brown during the dry season.

Project Vicinity

The area around the bridge is undeveloped and is characterized by riparian woodlands dispersed residential uses, and vineyards to the west. Nearby properties are generally large in size (10-20 acres), and mostly consist of single-family residences. Watmaugh Road is relatively straight on both east and westbound approaches to the bridge, and consequently, the bridge can be seen by the traveling public up to 0.5 miles away.

Viewing distance

The public views of the bridge are along Watmaugh Road and are characterized as a linear view up to the bridge. For this analysis, the viewing distance is the distance between the viewed object and the viewer. The closer the viewer is to a viewed object the more detail can be seen of the object. From the west, the bridge can be seen beginning at about 1500-ft approaching the site. From the east driving westbound, due to large mature trees that line the road and the change in the road alignment at the bridge, views begin from approximately 300 feet. Since the posted speed limit is 35 miles per hour through this corridor, the view duration eastbound is about 22 seconds and the duration westbound is about 6 seconds.

5A.2 EXISTING VISUAL SENSITIVITY DETERMINATION

For purposes of this EIR, the visual sensitivity of the project site is given a rating of low, moderate, high or maximum using the following definitions provided as part of the County's Permit and Resource Management Department's Visual Assessment Guidelines:

Table 5A-1 Definitions of Visual Sensitivity

Low	The site is within an urban land use designation and has no land use or zoning designations protecting scenic resources. The project vicinity is characterized by urban development or the site is surrounded by urban zoning designations and has no historic character and is not a gateway to a community. The project site terrain has slopes less than 20 percent and is not on a prominent ridgeline and has no significant natural vegetation of aesthetic value to the surrounding community.
Moderate	The site or portion thereof is within a rural land use designation or an urban designation that does not meet the criteria above for low sensitivity, but the site has no land use or zoning designations protecting scenic resources. The project vicinity is characterized by rural or urban development but may include historic resources or be considered a gateway to a community. This category includes building or construction sites with visible slopes less than 30 percent or where there is significant natural features of aesthetic value that is visible from public roads or public use areas (i.e. parks, trails etc.).
High	The site or any portion thereof is within a land use or zoning designation protecting scenic or natural resources, such as General Plan designated scenic landscape units, community separators, or scenic corridors. The site vicinity is generally characterized by the natural setting and forms a scenic backdrop for the community or scenic corridor. This category includes building and construction areas within the SR designation located on prominent

	hilltops, visible slopes less than 40 percent or where there are significant natural features of aesthetic value that are visible from public roads or public use areas (i.e. parks, trails etc.). This category also includes building or construction sites on prominent ridgelines that may not be designated as scenic resources but are visible from a designated scenic corridor.
Maximum	The site or any portion thereof is within a land use or zoning designation protecting scenic resources, such as General Plan designated scenic landscape units, community separators, or scenic corridors. The site vicinity is generally characterized by the natural setting and forms a scenic backdrop for a designated scenic corridor. This category includes building or construction sites within the scenic resource designation on or near prominent ridgelines, visible slopes greater than 40 percent or where there are significant natural features of aesthetic value that are visible from a designated scenic corridor.

Regulatory Environment

Sonoma County Official Zoning Database

The Sonoma County Official Zoning Database, including progressive amendments that as of May 10, 2011, placed the bridge into two combining districts: the bridge in the Historic District (HD) and Sonoma Creek in the F2 Floodplain. Zoning Districts adjacent to the project site include Biotic Resources (BR), Valley Oak Habitat (VOH) and Scenic Resource (SR) combining districts. The VOH extends along Watmaugh Road as far east as Highway 12; dense riparian habitat borders the banks of the creek near the project site however no valley oaks would be effected by the proposed project. The SR extends along Watmaugh Road as far west as Arnold Drive. The purpose of the SR is to preserve the visual character and scenic resources of lands in the County. Preservation of these scenic resources is important to the quality of life of County residents and the tourists and agricultural economy. As the County urbanizes, maintenance of the openness of these areas provides important visual relief from urban areas. The Sonoma Valley is one of several major scenic landscapes recognized in the County's General Plan and agricultural areas bordering the valley typically define the boundaries of the urban and rural communities. These landscapes are generally considered to have little capacity to absorb very much development without significant visual impact.

Sonoma County General Plan

The project site is located in unincorporated Sonoma County and is subject to the policies set forth in the Sonoma County General Plan 2020 and in the Sonoma County Zoning Regulations (the Zoning Regulations), which are included in Chapter 26 of the Sonoma County Code. The Zoning Regulations complement the General Plan.

The Open Space and Resource Conservation Element of the Sonoma County General Plan 2020 (OSRC) designates certain lands within the county as Scenic Landscape Units, Community Separators, and Scenic Corridors. This information can be found in Section 2.3 of the Sonoma County General Plan 2020. This section focuses on Goal OSRC-3 of the OSRC, which is to "identify and preserve roadside landscapes that have a high visual quality as they contribute to

the living environment of local residents and to the County's tourism economy." Sonoma County has adopted the following two objectives, located in the OSRC, to meet this goal:

- **Objective OSRC-3.1:** Designate the Scenic Corridors on Figures OSRC-5a through OSRC-5i along roadways that cross highly scenic areas, provide visual links to major recreation areas, give access to historic areas, or serve as scenic entranceways to cities.
- **Objective OSRC-3.2:** Provide guidelines so future land uses, development, and roadway construction are compatible with the preservation of scenic values along designated Scenic Corridors.

To achieve these objectives, Sonoma County has adopted a number of policies regulating development along Scenic Corridors. The following policies would apply to the project area:

- **Policy OSRC-3b:** Apply the Scenic Resources Combining District to those portions of the properties within Scenic Corridor setbacks.
- **Policy OSRC-3c:** Establish a rural Scenic Corridor setback of 30 percent of the depth of the lot to a maximum of 200 feet from the centerline of the road unless a different setback is provided in the Land Use Policies for the Planning Areas.

The OSRC also sets forth policies intended to preserve the natural and scenic resources which contribute to the general welfare and quality of life for the residents of the county and to the maintenance of its tourism industry. The OSRC includes policies and objectives addressing outdoor lighting. Goal OSRC-4 of the OSRC was adopted to preserve and maintain views of the night skies and the visual character of urban, rural, and natural areas, while allowing for nighttime lighting levels appropriate to a given use and location. Sonoma County has adopted the following objectives to meet this goal:

- **Objective OSRC-4.1:** Maintain nighttime lighting level at the minimum necessary to provide for security and safety of the use and users to preserve night time skies and the night time character of urban, rural, and natural area.
- **Objective OSRC-4.2:** Ensure that night time lighting levels for new development are designed to minimize light spillage offsite or upward into the sky.

To achieve these objectives, Sonoma County has adopted the following policies:

- **Policy OSRC-4a:** Require that all new development projects, County projects, and signage utilize light fixtures that shield the light source so that light is cast downward and that are no more than the minimum height and power necessary to adequately light the proposed use.
- **Policy OSRC-4b:** Prohibit continuous all night exterior lighting in rural areas, unless it is demonstrated to the decision making body that such lighting is necessary for security or operational purposes or that it is necessary for agricultural production or processing on

a seasonal basis. Where lighting is necessary for the above purposes, minimize glare onto adjacent properties and into the night sky.

- **Policy OSRC-4c:** Discourage light levels that are in excess of industry and State standards (Sonoma County 2008).

California Scenic Highway Program and Scenic Corridor Protection Program

In 1963, the California Legislature established the State's Scenic Highway Program, intended to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. There are no officially designated or eligible state scenic highways in the project vicinity, or which have views of the project site.

5A.3 CRITERIA USED FOR DETERMINING IMPACT SIGNIFICANCE

Approach and Methodology

The methodology used to assess the visual and aesthetic impacts of the proposed project is based on the Visual Assessment Guidelines issued by the Sonoma County Permit and Resource Management Department (PRMD). This methodology addresses the types and scales of proposed projects normally evaluated in environmental documents prepared for the County pursuant to CEQA. The methodology provides an objective basis for determining the significance of visual and aesthetic impacts under CEQA.

The primary tasks in assessing the project's visual and aesthetic impacts consist of viewing the site from relevant locations in the vicinity of the project site, selecting representative viewpoints for consideration in the EIR, describing the site from those locations, determining the sensitivity level of the site, studying photo simulations that illustrate the post-project appearance of the proposed site to help assess the project's visual dominance within its setting, and determining the significance of impact. These tasks are summarized below.

Determine Visual Dominance

Using the County's Visual Assessment Guidelines, the visual dominance of the proposed project was determined, first by evaluating the form, line, color, and texture of project features within the visual context of its surroundings. Using this evaluation and the photo simulations of the project, the project's visual dominance was defined according to the criteria contained in the PRMD Visual Assessment Guidelines. Potential classifications include Dominant, Co-Dominant, Subordinate, or Not Evident depending on a variety of factors including how visible the project will be, how strongly project elements stand out, how different they appear to be from surrounding development in terms of character, mass, and scale, and how much public attention they are likely to attract.

Table 5A-2 Definitions of Visual Dominance

Dominance	Characteristics
Dominant	Project elements are strong – they stand out against the setting and attract attention away from the surrounding landscape. Form, line, color, texture, and night lighting contrast with existing elements in the surrounding landscape.
Co-Dominant	Project elements are moderate – they can be prominent within the setting, but attract attention equally with other landscape features. Form, line, color, texture, and night lighting are compatible with their surroundings.
Subordinate	Project is minimally visible from public view. Element contrasts are weak – they can be seen but do not attract attention. Project generally repeats the form, line, color, texture, and night lighting of its surroundings.
Inevident	Project is generally not visible from public view because of intervening natural land forms or vegetation

Determine Significance of Visual Impacts

The determination of visual impacts was made by correlating visual sensitivity with visual dominance in accordance with the Visual Assessment Guidelines. The project would have a significant visual impact if the visual dominance of the proposed project exceeds that which is considered acceptable for the sensitivity level of the project site as shown in Table 5A-3 below. When the visual sensitivity of a site is classified as Maximum, any level of visual dominance greater than Not Evident yields significant visual impacts. Conversely, when the visual sensitivity of a site is determined to be Low, visual impacts of even visually Dominant projects are considered less than significant.

Table 5A-3 Visual Impact Significance Matrix

Sensitivity	Visual Dominance			
	Dominant	Co-Dominant	Subordinate	Inevident
Maximum	Significant	Significant	Significant	Less than Significant
High	Significant	Significant	Less than Significant	Less than Significant
Moderate	Significant	Less than Significant	Less than Significant	Less than Significant
Low	Less than Significant	Less than Significant	Less than Significant	Less than Significant

In addition, criteria from the CEQA Guidelines were used as a means to determine the significance of impacts. According to these criteria, the project would have a significant visual and aesthetic impact if it:

1. Has a substantial adverse effect on a scenic vista.

2. Substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. (See the Summary of the Initial Study for a discussion under this checklist question).
3. Substantially degrades the existing visual character or quality of the site and its surroundings. (See the Summary of the Initial Study for a discussion under this checklist question in Appendix D).
4. Creates a new source of substantial light or glare which would adversely affect day or nighttime views in the area. (See Appendix D and Section 4 for the Summary of the Initial Study for a discussion under this checklist question).

5A.4 POTENTIAL IMPACTS AND MITIGATION MEASURES

Project Impacts

Evaluating the proposed project's potential adverse effects on scenic vistas involves describing the existing setting, the project's description, and the policies and regulations that affect the project area.

Policy For Scenic Landscape Units - As the County urbanizes, maintenance of the openness of these areas provides important visual relief from urban densities. These landscapes have little capacity to absorb very much development without significant visual impact. Major Scenic Landscape Units include the area where the proposed project is located in Sonoma Valley.

Sonoma Valley - Included in this area are the Sonoma-Napa Mountains that provide a backdrop to the valley and agricultural areas bordering the valley. These areas define the boundaries of the urban and rural communities and are very sensitive because of their small size and the unobstructed view of them from roads and adjoining urban areas.

- **Policy OSRC-2d (5)** - Design structures to use building materials and color schemes that blend with the natural landscape and vegetation.

Characterize the Site's Sensitivity – As discussed above, the visual sensitivity of the project site may be given a rating of low, moderate, high or maximum using the criteria specified in the VA Guidelines (see above Table 5A-1). The visual dominance of the project is determined comparing the contrast of the VA Guideline's elements, or characteristics, of the project with its surroundings and giving a rating of inevident, subordinate, co-dominant, or dominant.

Site Sensitivity - Based on the criterion specified in the VA Guidelines, the visual sensitivity of the proposed project site is *high*. Sites designated as "high" in sensitivity are locations within a

land use or zoning designation protecting scenic or natural resources, such as General Plan designated scenic landscape units, coastal zone, community separators, or scenic corridors. The site vicinity is generally characterized by the natural setting and forms a scenic backdrop for the community or scenic corridor. This category includes building and construction areas within the SR designation located on prominent hilltops, visible slopes less than 40 percent or where there are significant natural features of aesthetic value that are visible from public roads or public use areas (i.e. parks, trails etc.). This category also includes building or construction sites on prominent ridgelines that may not be designated as scenic resources but are visible from a designated scenic corridor.

Visual Dominance - Based on the criterion specified in the VA Guidelines, the visual dominance of the proposed project is *co-dominant*. Project elements are moderate – they can be prominent within the setting, but attract attention equally with other landscape features such as the riparian forest along the creek. Form, line, color, texture, and night lighting are compatible with their surroundings.

Project impacts have been analyzed by considering public viewing points (Figure 3). Public viewing points include public roads, public trails, and public parks. Viewing points from private properties are not used when applying the VA Guidelines.

Determining Significance of Visual Impacts - The visual sensitivity of the site is *high*. The visual dominance of the project in terms of its form, line, color, texture, and lighting is *co-dominant*. Based on the Visual Assessment Guidelines, this removal of the bridge represents a potentially significant impact.

Aesthetics Impact No. 1: The proposed bridge replacement would require the removal of existing mature trees that would temporally leave open bare areas and therefore impact existing views from the roadway (Appendix I, Photos 4-6) (Figure 3).

Aesthetics Mitigation Measure A-1: *The County will include the planting of native trees and shrubs, including native oaks, California bay, buckeye, and other native species within the public ROW along Watmaugh Road and Sonoma Creek that are compatible with existing riparian and upland setting. The plantings will be maintained for a minimum period of three years.*

Implementation of Aesthetics Mitigation Measure A-1 will reduce this potential impact to aesthetics to a **less-than-significant level**.



Photograph A



Photographic Simulation B

Existing Bridge (A) and Proposed Bridge Replacement Project in Current Alignment (B)
Showing Pony Truss Retained . View Looking Westerly.

FIGURE 3

Aesthetics Impact No. 2: The proposed bridge replacement design includes the reuse of the trusses found on the existing bridge as project design feature on the proposed new bridge. While that is the case, the area of the project is currently a rural and agricultural setting and the replacement of the existing bridge with modern materials could adversely impact the feel and overall visual quality of the surrounding area.

Aesthetics Mitigation Measure A-2: *The proposed replacement bridge design shall include new period correct lattice rails, and the other visually prominent elements of the existing bridge shall be incorporated into the proposed bridge to the degree feasible without compromising the structural integrity of project. Where using existing bridge components would not be practical, new materials shall be treated to blend with reused bridge elements and the surrounding rural community.*

Implementation of Aesthetics Mitigation Measure A-2 will reduce this potential impact to aesthetics to a **less-than-significant level**.

Cumulative Impacts

The following cumulative impacts discussion focuses on whether the impacts of the proposed project are cumulatively considerable within the context of impacts caused by other past, present, or reasonably foreseeable future projects. In order for a cumulative aesthetic impact to occur, the proposed elements of the cumulative projects would need to be seen together or in proximity to each other. If the projects were not in proximity to each other, the viewer would not perceive them in the same scene. Except for routine road and bridge maintenance, there are no additional known upcoming projects proposed in proximity to the Watmaugh Broad Bridge or along the Watmaugh Road corridor.

With the inclusion of Aesthetics Mitigation Measures 1 and 2 (detailed above) that includes the reuse of the existing truss elements found on the existing bridge and reestablishing the effected section of riparian trees, the project would make a less-than-cumulatively considerable contribution to a significant cumulative visual impact along the Watmaugh Road Bridge over Sonoma Creek corridor.

SECTION 5B - CULTURAL RESOURCES

5B.1 INTRODUCTION

This section is based on a Historical Property Survey Report (HPSR) that was prepared by Tom Origer and Associates (TOA, 2001). This study was conducted to determine whether properties within the project's Area of Potential Effect (APE) may meet the criteria for listing in the National Register of Historic Places (National Register), California Register of Historical Resources (California Register), or meet CEQA significance criteria. The HPSR was reviewed and approved by Caltrans for FHWA in 2002, in accordance with Section 106 of the National Historic Preservation Act (NHPA). In addition to the HPSR, Tom Origer's staff has prepared two additional studies that were used in this Section:

1. Primary Record for the Watmaugh Bridge (California Department of Parks and Recreation Form 523 (DPR Form), 2012 (Document on file at the Northwest Information Center, Sonoma State University, Rohnert Park).
2. Cultural Resources Analysis of Proposed Alternatives to the Watmaugh Road Bridge Replacement Project, 2012. (See Appendix F.)

5B.2 SETTING

The proposed project is located in southern Sonoma County. The project area follows a portion of Watmaugh Road, an arterial roadway connecting the City of Sonoma with Arnold Drive and Highway 121. The road runs generally east and west along the southeast side of the Sonoma Valley and crosses Sonoma Creek at the proposed project site.

5B.3 HISTORIC PROPERTY SURVEY REPORT STUDY METHODS

The HPSR included archival research, examination of the library and project files at Tom Origer and Associates, and a review of the archaeological site base maps and records, survey reports, and other materials on file at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park. Sources of information included, but were not limited to, the current listings of properties on the National Register, California Historical Landmarks, California Register of Historical Resources (California Register), and California Points of Historical Interest, as listed in the Office of Historic Preservation's *Historic Property Directory* (OHP 1999). The HPSR also included interviews with local historians and field surveys and photo documentation within the Area of Potential Effect (APE). Documentation pertaining to this study is on file at the offices of Tom Origer and Associates.

5B.4 HISTORIC CONTEXT

The Watmaugh Road Bridge is one of nineteen extant metal truss bridges in Sonoma County, and one of two remaining Warren pony truss bridges in the county. The existing truss bridges were constructed from circa 1880 to 1949 and include former railroad bridges and bridges built exclusively for wagon/automobile transportation. In 1919, a bond measure was passed by the Sonoma County Board of Supervisors, and subsequently by popular vote, funding modernization of the county road system. The proposed roads would link Sonoma, Petaluma, Valley Ford, Bodega Bay, and north to the Mendocino County Line; Santa Rosa, Sebastopol, Freestone, and Valley Ford; Healdsburg, Forestville, Guerneville, and Jenner; Healdsburg to the Napa County Line; Cotati, Sebastopol, and Forestville; and Graton and Occidental. The improvements plan included construction of several new bridges and replacement of others. Six of the existing truss bridges in Sonoma County were built under this plan. The majority of these six were completed during the nine-year period preceding 1930. Only two of the remaining truss bridges were built under the County plan during the early 1930s. During the first years of the Great Depression, the County stuck to its road projects but as the decade progressed, the County's ability to complete its projects was severely hindered. In 1933, the State took control of much of the County's road system, including portions of present-day State Highways 1, 12, 116, and 128. Nine of the extant truss bridges were constructed after that date. According to the HPSR, the creek crossing at Watmaugh Road was a ford until the 1890s when, at the request of local residents, the County financed construction of a wooden bridge. The Watmaugh Road crossing provided a more direct link to the south end of Sonoma and the lower Broadway area.

According to the HPSR the County opted to replace the original bridge under the 1919 Highway Modernization Plan. New plans were drawn for a steel truss bridge by County Surveyor, E.A. Peugh in 1927, and the construction contract went to W.L. Proctor for \$14,783.00 (Sonoma County Board of Supervisors 1929). The current Watmaugh Road Bridge (once known as the Hopke Bridge) was constructed in 1929 and is a three span polygonal Warren pony truss with a concrete deck. The Watmaugh Road Bridge is 170 ft in length, is 24 ft in width, has two 10-ft travel lanes and lacks shoulders. The original steel lattice rails on the bridge deck were replaced prior to 1981 with modern w-section steel guardrails.

According to the report, events occurring in late-1970's and early-1980's demonstrate the importance of this bridge to local residents. When the County considered replacing the bridge, citizens formed the Committee for the Preservation of Watmaugh Road Bridge to prevent the replacement project. Other citizens groups and the Sonoma League for Historic Preservation joined this committee in its efforts. Subsequently, the bridge was granted County Landmark status in 1981, and received a Historic District (HD) zoning overlay¹ (20).

¹ *Historic Property Survey Report for the Watmaugh Road at Sonoma Creek Bridge Seismic Retrofit Project* Sonoma County, California (2001). Tom Origer and Associates

5B.5 REGULATORY SETTING

Federal Regulations

Section 106 of the NHPA of 1966 governs federal regulations for cultural resources. Section 106 requires Federal agencies to consider the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations "Protection of Historic Properties" are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites that are determined eligible for listing on the National Register of Historic Places. The criteria for determining National Register eligibility are found in 36 CFR Part 60. Amendments to the Act (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process.

The HPSR prepared by Tom Origer and Associates (TOA, 2001) evaluated the bridge for National Register eligibility. In order for the bridge to be found eligible for the National Register, it would need to be demonstrated that it retains much of its original integrity. If the bridge was determined to possess much of its integrity, then, one the following criteria must also be met:

- (a) the bridge was associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) that the bridge is associated with the lives of persons significant in our past; or
- (c) that the bridge embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) that the structure has yielded, or may be likely to yield, information important in prehistory or history.

The conclusions of the HPSR found that while the bridge does possess a high degree of integrity, it does not meet any of the necessary criteria listed above (see the HPSR attached hereto as Appendix F for further details). Similarly in 2004, during a major statewide historic bridge evaluation effort, Caltrans completed an evaluation for the bridge and also found it ineligible for the National Register.

State Regulations

State historic preservation regulations affecting this project include the statutes and guidelines contained in CEQA (Public Resources Code Sections 20183.2 and 21084.1 and Section 15064.5 of the *CEQA Guidelines*). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. Several agency publications, such as the series produced by the Governor's Office of Planning and Research (OPR), provide advice on procedures to identify such resources, evaluate their importance, and estimate potential effects.

California Historic Register

The State Historic Preservation Office (SHPO) maintains the California Register of Historical Resources (California Register). Properties listed on the National Register are automatically listed on the California Register, along with State Landmarks and Points of Interest. The California Register can also include properties designated under local ordinances or identified through local historical resource surveys.

California Register of Historical Resources Criteria

Tom Origer and Associates determined the Watmaugh Road Bridge is eligible for inclusion on the California Register under Criteria 1 and 3 as described below:

Criterion 1: *The Watmaugh Road Bridge is representative of a period in California's history when construction of truss bridges was in decline, and is illustrative of a vanishing bridge form in Sonoma County. The bridge was part of a countywide highway plan approved by the Board of Supervisors and voters in 1919, and was designed to contribute to modernization of the county transportation system. The bridge represents an important aspect of the county's growth and development, and in particular the County's initial efforts to modernize its transportation system. For this reason, Tom Origer and Associates concluded that Watmaugh Road Bridge meets Criterion 1.*

Criterion 2: *No especially important people are associated with the Watmaugh Road Bridge. Tom Origer & Associates report concluded that the Watmaugh Road Bridge would not meet Criterion 2.*

Criterion 3: *The Watmaugh Road Bridge is a Warren pony truss bridge, of which many were constructed in the United States during the late 19th and early 20th centuries. The bridge is not a distinctive example of this style, but it is one of only two Warren pony truss bridges remaining in Sonoma County. Rarity of the Warren pony truss style lends the bridge importance under Criterion 3, as it embodies the distinctive characteristics of a type and period of construction. For this reason, Tom Origer and Associates believes that the Bridge meets Criterion 3.*

Criterion 4: *Criterion 4 generally applies to archaeological resources that could yield important analytical data related to prehistory or history. Tom Origer and Associates concluded that the Bridge would not meet Criterion 4.*

In addition to meeting one or more of the above Criteria, a resource eligible for inclusion on the California Register must retain sufficient integrity to convey a sense of its significance or importance. As defined by the California Office of Historic Preservation, “Integrity is the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance. Seven aspects are considered in evaluating a resource’s integrity: location, design, setting, materials, workmanship, feeling, and association. Tom Origer and Associates found the Watmaugh Road Bridge retains a high degree of integrity in all aspects. The location, setting, and feeling of the bridge are relatively unchanged, and the physical alterations to the bridge are limited to replacement of the original steel lattice rails with modern steel w-section guardrails.

Local Regulations

The Watmaugh Road Bridge has a Historical District (HD) Combining Zone overlay. The Watmaugh Road Bridge is also one of nineteen extant metal truss bridges and one of two remaining fixed Warren pony truss bridges in Sonoma County. On July 28, 1981, under Resolution #69974, the Sonoma County Board of Supervisors designated the Watmaugh Road Bridge as Sonoma County Historic Landmark #103. An “historical resource” (i.e., significant historic resource) under CEQA is a historic resource which meets one or more of the criteria for eligibility for inclusion on the California Register of Historical Resources, or which meets the criteria for eligibility for inclusion on a local historic resources register or inventory. As the Watmaugh Road Bridge is a Sonoma County Historic Landmark, it is considered as a historical resource under CEQA.

In 1998, the Watmaugh Road Bridge was included within a list of bridges that Board of Supervisors zoned HD, establishing a historic bridge thematic district, with a finding that doing so would afford long term protection of the bridges and ensures that modifications are not detrimental to their historic integrity (Resolution 98-0046). The Board of Supervisors adopted specific procedures that govern Landmarks Commission review of HD bridge removal projects, such as this one.

Many meetings have taken place with the Landmarks Commission over the past two years to discuss the proposed project and various project alternatives. On July 24, 2012, the Sonoma County Landmarks Commission reviewed the proposed project per the required procedures for HD bridges and bridge removal projects. The Landmarks Commission recommended denial of the proposed project principally due to the loss of the bridge taken individually but also due to the effect of loss of the bridge to the remaining thematic district taken as a whole. In accordance with the procedures for removal of Landmarks bridges, Landmarks

recommendations and the response by DTPW was submitted to the Board of Supervisors (BOS) on July 31, 2012, where the BOS approved a contract to complete an EIR and design of the project, including evaluation of alternatives. The individual impact to the historic value of the Watmaugh Road is discussed below in Section 5.B.7. The potential effects to the thematic district are discussed in the cumulative analysis Section 5.B.8, also below.

5B.6 THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a significant effect to a historical or cultural resource will normally occur if a project would:

1. Cause a substantial adverse change in the significance of a historical resource, or a unique archaeological resource, as defined in §15064.5;
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
4. Disturb any human remains, including those interred outside of formal cemeteries.

5B.7 POTENTIAL IMPACTS AND MITIGATION MEASURES

Cultural Resource Impact No. 1: The proposed project would remove and replace the existing Watmaugh Road Bridge that is designated as historically significant by the County, and is eligible for inclusion on the California Register. Based on an evaluation by Tom Origer and Associates (2012), the removal of the bridge would cause a substantial adverse change to the bridge such that it would no longer be a significant historical resource, even with the proposed incorporation of elements of the existing bridge into the new bridge. Therefore, the project would have a potentially significant adverse impact to a historical resource.

Cultural Resource Mitigation Measure C-1: *Prior to implementing the proposed project, the DTPW shall provide an evaluation of the Watmaugh Road Bridge that includes a final historical assessment and a photographic archive of the bridge. The evaluation shall address the bridge in the context of the structure including photo-documentation and additional historical research necessary to complete the State of California's Department of Parks and Recreation 523 forms, which constitute official documentation of historical resources for the State Office of Historic Preservation. Copies of documentation shall be provided to the Northwest Information Center (NWIC) of the California Historical Resources Information System, including the History Annex of the Sonoma County Library.*

While the implementation of Cultural Resource Mitigation Measure - 1 will reduce the impact to the historic resource it will not reduce the impact to a less-than-significant level. Therefore, the Cultural Resource Impact No. 1 will remain *significant and unavoidable (SU)*.

Cultural Resource Impact No. 2: There are no known archaeological resources on the site, but the project could uncover such materials during construction.

Cultural Resource Mitigation Measure C-2: All improvement and grading plans and the specifications for the project shall have the following note printed on plan sheets:

All improvement and grading plans shall have the following note printed on plan sheets:

"In the event that archaeological resources such as pottery, arrowheads, midden or culturally modified soil deposits are discovered at any time during grading, scraping or excavation within the property, all work shall be halted in the vicinity of the find and County PRMD - Project Review staff shall be notified and a qualified archaeologist shall be contacted immediately to make an evaluation of the find and report to PRMD. PRMD staff may consult and/or notify the appropriate tribal representative from tribes known to PRMD to have interests in the area. Artifacts associated with prehistoric sites include humanly modified stone, shell, bone or other cultural materials such as charcoal, ash and burned rock indicative of food procurement or processing activities. Prehistoric domestic resources include hearths, firepits, or house floor depressions whereas typical mortuary resources are represented by human skeletal remains. Historic artifacts potentially include all by-products of human land use greater than 50 years of age including trash pits older than fifty years of age. When contacted, a member of PRMD Project Review staff and the archaeologist shall visit the site to determine the extent of the resources and to develop and coordinate proper protection/mitigation measures required for the discovery. PRMD may refer the mitigation/protection plan to designated tribal representatives for review and comment. No work shall commence until a protection/mitigation plan is reviewed and approved by PRMD - Project Review staff. Mitigations may include avoidance, removal, preservation and/or recordation in accordance with California law.

If human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and PRMD staff, County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and the appropriate provisions of the California Government Code and California Public Resources Code will be followed."

Mitigation Monitoring: Improvement and grading plans and specifications for the project shall be reviewed prior to advertising for bids for inclusion of the required notation plans.

Implementation of Cultural Resource Mitigation Measure C-2 will reduce this potential impact to cultural resources to a **less-than-significant level**.

While no burial sites are known in the vicinity of the project, and most of the project site has already been disturbed by past construction.

Cultural Resource Impact No. 3: Native American burial sites may exist along Sonoma Creek and could be disturbed by the construction activities associated with the proposed project.

***Cultural Resource Mitigation Measure C-3:** All improvement and grading plans and the specifications for the project shall have the following note printed on plan sheets: “If human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and PRMD staff, County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American, the Native American Heritage Commission must be contacted by the Coroner so that a “Most Likely Descendant” can be designated and the appropriate provisions of the California Government Code and California Public Resources Code will be followed.”*

Implementation of Cultural Resource Mitigation Measure C-3 will reduce this potential impact to cultural resources to a **less-than-significant level**.

5B.8 CUMULATIVE IMPACTS

The following cumulative impacts discussion focuses on whether the impacts of the proposed Project are cumulatively considerable within the context of impacts caused by other past, present, or reasonably foreseeable future projects to historic bridges. The cumulative impact scenario considers other county projects within the area of the proposed project that have the potential to contribute to cumulatively considerable impacts (see Table 5C-2 in Section 5C Land Use and Planning for a list of the other projects included in this review).

As discussed previously in this section, the proposed project would remove and replace the existing Watmaugh Road Bridge that is included in a historic bridge thematic district that could reduce the pooled value of the remaining district. The Watmaugh Road Bridge is one of nineteen extant metal truss bridges in Sonoma County and one of two remaining fixed polygonal² Warren pony truss bridges in the County. While such bridges are now in limited existence in Sonoma County, numerous Warren pony trusses were constructed across the United

² The main structural steel of the truss forms a tapered polygon and is thus called “a polygonal truss.”

States during the late 19th and early 20th centuries of which approximately 1,870 remain nationwide and approximately 353 polygonal Warren pony trusses remain. It is reported that 37 Warren pony trusses remain intact in California with a total of eight polygonal Warren pony trusses remaining statewide³.

Currently, there are no additional proposals to remove other bridges within the HD bridge thematic district. As discussed in Section 5C, the Hacienda Bridge, Clarks Crossing, and the Arnold Drive Bridge at Eldridge, are HD designated bridges that have received relatively recent work that should extend their service lives. Both Big Sulphur Creek Bridge and the Chalk Hill Bridge are planned have future projects that will construct new parallels bypass bridges located nearby where the existing historic structures will remain in-place (see Table 5C-2 in Section 5C). Future projects proposing removal would require environmental review and compliance with the procedures established for Landmarks Commission review of proposed work on historic bridges. In addition, all HD bridge-related projects require final review and approval by the Board of Supervisors on a case-by-case basis on the needs and merits of the individual project.

Since this is the case locally, and since several similar structures remain within the state and many more remain nationwide; although the loss of the Watmaugh Road Bridge is individually considered to be a significant adverse impact to a historical resources, the loss of the bridge would not result in cumulatively considerable contribution and would be a less than significant cumulative impact.

³ Baughn, James. *Historic Bridge Hunter* September 15, 2012. <http://www.bridgehunter.com/>

SECTION 5C - LAND USE AND PLANNING

This section describes the existing land use setting and uses of the project site and adjacent areas. It includes the identification of current General Plan policies and zoning designations. The purpose of the Land Use section is to provide the environmental and regulatory background necessary to analyze potential physical impacts to land use associated with the proposed project. This section also identifies potential conflicts with plans and policies and describes mitigation measures that would reduce the severity of potential physical impacts. The impacts of the proposed project on land use were analyzed qualitatively, focusing on potential conflicts between planned and permitted uses under applicable land use plans.

5C.1 SETTING

Existing Site Description and Surrounding Land Uses

The project site consists of the existing County-owned Watmaugh Road right-of-way, which includes the existing bridge and its approaches. The project site also includes the banks and bed of Sonoma Creek beneath and adjacent to the existing bridge, as well as small portions of adjacent privately owned parcels for which the County may need to acquire right-of-way, permanent easements and/or temporary easements in order to construct the project.

The existing bridge and roadway is described in Section 3.1 Project Location and Setting. The existing bridge has County Landmark status and is formally zoned with the Historic Combining District (HD), described in more detail below under the heading Sonoma County Zoning Ordinance.

The existing land uses of the surrounding parcels include rural residential development (residences and associated structures and landscaping), agricultural development (vineyards and associated agricultural structures), and riparian habitat.

Relevant Plans, Policies and Regulations

Sonoma County General Plan

Sonoma County General Plan 2020 (General Plan), adopted in 2008, is the County's current general plan. The General Plan consists of several plan elements as follows: Land Use, Housing, Open Space and Resource Conservation, Agricultural Resources, Public Safety, Circulation and Transit, Air Transportation, Public Facilities and Services, and Noise. The purpose of the General Plan is to express policies which guide decisions on future growth, development, and conservation of resources through the year 2020 in a manner consistent with the goals and quality of life desired by the county's residents. Projects of the County are subject to the General Plan.

General Plan land use designations for parcels adjacent to the project include Land Intensive Agriculture (LIA) 40-acre density west of the bridge and Diverse Agriculture (DA) 10-acre density east of the bridge. The General Plan designates areas near the foothills west of the bridge as part of a Scenic Landscape Unit, which are natural features within Sonoma County that are highly scenic and of special significance. Sonoma Creek is designated a Riparian Corridor.

Discussion of the project's potential conflicts with the General Plan is included below under Section C, Consistency with Adopted General and Regional Plans.

Sonoma County Zoning Ordinance

Zoning for the bridge and parcels adjacent to the project are listed in Table 5C-1.

Table 5C-1. Sonoma County Zoning Designations

Assessor Parcel Number	Base Zoning	Combining District	Minimum Lot Size	Current lot Size	Lot Size After Project	Right-of Way Setback Requirement	Current Setback distance	Setback After Project
128-301-015	LIA B6 40 Z	BR F2 SR VOH	40	53.65	53.65	30'	Approx 40-ft	40-ft
128-341-027	DA B6 10	BR F2 VOH	10	3.10	3.10	30'	Approx 50-ft	50-ft
128-401-019	DA B6 10	BR F2 VOH	10	4.5	4.30	30'	Approx 150-ft	Approx 146-ft
128-391-011	LIA B6 40 Z	BR F2 SR VOH	40	39.95	39.85	30'	No Residence	No ROW
Watmaugh Road Bridge	NA	HD	NA	NA	NA	NA	NA	NA

LIA= Land Intensive Agriculture, DA= Diverse Agriculture, B6 40= 40 acre density, B6 10= 10 acre density, Z= Second Unit Exclusion Combining District, BR= Biotic Resource, F2= F2 Floodplain, SR=Scenic Resources, VOH=Valley Oak Habitat
NA=Not Applicable

In general, the provisions of the Sonoma County Zoning Ordinance do not apply to public projects of the County (Zoning Ordinance, Section 26-02-070). On July 28, 1981, under Resolution #69974, the Sonoma County Board of Supervisors designated the Watmaugh Road Bridge as Sonoma County Historic Landmark #103, and zoned the bridge with the Historic Combining District (HD).

The purpose of an HD District, as described in the Zoning Ordinance, is to protect those structures that serve as remainders of past eras, events or persons important in history, provide significant examples of architectural styles of the past, or are unique and irreplaceable assets to the county. The HD District accomplishes these protections by requiring that alterations or demolitions proposed to be made to a structure located within an HD District be reviewed for a recommendation to the Board of Supervisors by the Sonoma County Landmarks Commission.

In 1998, the Board of Supervisors zoned a list of bridges HD, establishing a historic bridge thematic district, with a finding that doing so would afford long-term protection of the bridges and ensure that modifications are not detrimental to their historic integrity (Resolution 98-0046).

The Board of Supervisors adopted specific procedures that govern Landmarks Commission review of proposed work on HD bridges and procedures governing the review of bridge removals, applicable to the proposed project. The Landmarks Commission process and findings for the proposed project are discussed below.

Metropolitan Transportation Commission Transportation 2035 Plan for the San Francisco Bay Area (2009)

Regional Transportation Plans (RTPs) are State-mandated documents developed and cyclically updated by the Regional Transportation Planning Agencies (RTPAs) and Metropolitan Planning Organizations (MPOs). They consist of policy, action, and financial elements and they lead to identification of projects. RTPs also include a map showing the recommended short-range and long-range improvements and additions to the regional highway system.

The vision for Transportation 2035 is to support a prosperous and globally competitive Bay Area economy, provide for a healthy and safe environment, and promote equitable mobility opportunities for all residents.

Sonoma County Transportation Authority 2009 Comprehensive Transportation Plan (CTP)

The CTP, adopted by the Sonoma County Transportation Authority, contains goals and objectives for improving mobility on Sonoma County's streets, highways, and transit system and bicycle/pedestrian facilities, as well as to reduce transportation related impacts. The four policy goals of the CTP are to maintain the existing system, relieve congestion, reduce greenhouse gas emissions, and plan for public health and safety.

5C.2 THRESHOLDS OF SIGNIFICANCE

According to the CEQA Guidelines (Appendix G: Environmental Checklist Form), land use or planning impacts are based on the project's potential to:

- a) Physically divide an established community;
- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect;
- c) Conflict with any applicable habitat conservation plan or natural community conservation plan.

5C.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

The project would not physically divide a community because it would merely replace an existing bridge. The project site is not located within the area of an adopted habitat conservation

plan or natural community conservation plan. Therefore, the project would have no impact on these issues, and they are not discussed further in this EIR.

Land Use and Planning Impact No. 1. The project could require right-of-way acquisitions or easements from parcels adjacent to the existing bridge in order to construct the new bridge and realigned roadway approaches (see Table 5C-1 above). However, these acquisitions or easements would be limited to small areas 8,712 ft² total, fronting the existing roadway and their conversion to roadway use would reduce the setbacks to existing structures by a minor amount, but would still be consistent with required building setbacks. The acquisition of the small areas would not reduce parcels to a size that would be incompatible with the existing land use or land use designations on the remainder of the parcels. This impact is less than significant.

Land Use and Planning Impact No. 2. Removal of the existing bridge as proposed by the project would conflict with the purpose of the existing HD zoning. If the bridge project is approved, future rezoning to remove the bridge from the HD district would likely be required.

Several meetings have taken place with the Landmarks Commission over the past two years to discuss the proposed project and various project alternatives. On July 24, 2012, the Sonoma County Landmarks Commission reviewed the proposed project per the required procedures for HD bridges and bridge removal projects. The Landmarks Commission recommended denial of the proposed project in part because they concluded that the replacement bridge would remove an important historic resource and would conflict with the purposes of the HD zoning to preserve the historic character of the bridge, even with the proposed mitigation to retain the trusses. The Landmarks Commission was also concerned that the project may result in the need to rezone the site to remove the bridge from the HD District. The Landmarks Commission was concerned that replacement of the Watmaugh Bridge would set a precedent for other historic bridges to also be replaced rather than rehabilitated.

In accordance with the procedures for removal of Landmarks bridges, Landmarks recommendations and the response by DTPW was submitted to the Board of Supervisors (BOS) on July 31, 2012, where the BOS approved a contract to complete an EIR and design of the project, including evaluation of alternatives.

As mentioned previously, the proposed project would remove and replace the existing Watmaugh Road Bridge that is designated as historically significant by the County, and is eligible for inclusion on the California Register. Based on an evaluation by Tom Origer and Associates¹, the removal of the bridge as proposed by the project would cause a substantial adverse change to the bridge such that it would no longer be a significant historical resource, even with the proposed incorporation of elements of the existing bridge into the new bridge. Therefore, the project would have a potentially significant adverse impact to a historical

¹ Janine M. Loyd Senior Associate Tom Origer & Associates,) Personal Communication (9/14/2012).

resource. Therefore, the project would have a significant unavoidable impact to historic resources as noted in Section 5B of this EIR (see Section 5B).

5C.4 CUMULATIVE IMPACTS

The following cumulative impacts discussion focuses on whether the impacts of the proposed Project are cumulatively considerable within the context of impacts caused by other past, present, or reasonably foreseeable future projects. The cumulative impact scenario considers other projects within the area of the proposed project that have the potential to contribute to cumulatively considerable impacts.

There are no other past, present, or reasonably foreseeable projects that would contribute to a cumulative impact to land use in the project vicinity.

This discussion of cumulative impacts focuses on the potential of the project to impact the HD zoning of other bridges constituting the historic bridge thematic district established by Board of Supervisors Resolution 98-0046. The findings in Resolution 98-0046 state that the bridges qualify individually and as a thematic district for local historic designation. Because the bridges each qualify individually, the removal and rezoning of the Watmaugh Bridge under the proposed project does not make the remaining bridges ineligible for HD zoning or require their rezoning.

Table 5C-2. Sonoma County Landmark Bridge Project Status

Project Status of Bridges Zoned HD					
Bridge Name	Bridge Number	Sufficiency Rating ¹	Year Designated	Proposal	Status of Environmental Review
Arnold Drive Bridge at Eldridge	20C-213	36.1	1998	No project proposed.	Bridge was repainted in 2002 after Landmarks review and original color (Battleship Gray) was chosen.
Big Sulphur Creek Geysers Road Bridge	20C-005	42.4	1998	Construct new bridge downstream, old bridge to remain.	NEPA initiated. CEQA not yet begun.
Chalk Hill Bridge (Maacama Bridge)	20C-242	49.0	1998	Construct new bridge downstream, old bridge to remain.	CEQA and NEPA not yet initiated.
Clark's Crossing (Annapolis Road Bridge)	20C-141	44.9	1998	Retrofit completed.	Complete.
Guerneville Bridge ²	20C-091	22.5	1998	Non-County. Parallel replacement built in 1998.	Complete
Hacienda Bridge	20C-037	53.5	1998	Retrofit completed in 2000.	Complete
Haupt Creek	20C-224	50.0	1998	No project proposed.	N/A
Lambert Road Bridge	20C-248	4.8	1998	Construct new bridge downstream, old bridge to remain.	CEQA and NEPA not yet initiated.

Project Status of Bridges Zoned HD					
Bridge Name	Bridge Number	Sufficiency Rating ¹	Year Designated	Proposal	Status of Environmental Review
North Fork (Gualala Road) (in Mendocino County)	10C-046	42.5	1998	No project proposed.	N/A
Wohler Road Bridge over the Russian River	20C-155	46.3	1998	Seismic Retrofit	NEPA completed. CEQA not yet initiated.
Calabazas Bridge (O'Donnell Lane)	20C-324	16.7	1981	Rehabilitate existing bridge.	NEPA initiated. CEQA not yet initiated.
Watmaugh Road Bridge (Hopke Bridge)	20C-017	4.0	1981	Replace existing bridge.	NEPA will likely be Categorical Exclusion and CEQA EIR is in Prep.
Monte Rio (Bohemian Highway)	20C-018	36.3	2003	Planning study to determine project.	CEQA and NEPA not yet initiated.
Austin Creek (Old Duncan's Grade)	20C-094	27.0	2003	Bridge damaged and currently closed. Will need to repair in the future.	No project proposed yet.

¹The sufficiency rating is an overall "health" indicator developed by the Federal Highway Administration (FHWA). This number takes into consideration the load capacity of a bridge, the deck geometry, the approaches, the guardrails, and a number of other factors to determine the overall sufficiency of the structure. ² Guerneville Bridge is now used as a bicycle and pedestrian bridge only and is maintained by the Sonoma County Regional Parks Department.

Nor would removal of the Watmaugh Bridge under the proposed project make it more likely that any of the remaining bridges would be removed or replaced. There are no current proposals or plans to remove other bridges zoned HD (see Table 5C-2 above). As illustrated by Table 5C-2, Guerneville Bridge and Calabazas Bridge each have a sufficiency rating less than 22.5. While this is the case, each are National Register eligible and have funding available for maintenance and rehabilitation work and there are no plans for their removal. Some of the of the other HD bridges including the Hacienda Bridge, Clarks Crossing, and the Arnold Drive Bridge have had relatively recent projects that should extend their service life. A few other HD bridges will likely have projects that will construct new parallels bridges located nearby (e.g., Big Sulphur Creek Bridge and the Chalk Hill Bridge). As has been the case in the past, all future projects proposing modifications to or removal of HD bridges would require environmental review and compliance with the procedures established for Landmarks Commission review of proposed work on historic bridges, and would require case-by-case consideration based on the need for and merits of the project by the Board of Supervisors. For these reasons the zoning conflict that is created by the replacement of the Watmaugh Road Bridge would not result in a cumulatively considerable contribution would be a less than significant cumulative impact.

5C.5 CONSISTENCY WITH ADOPTED GENERAL AND REGIONAL PLANS

Section 15125 (d) of the CEQA Guidelines requires that an EIR discuss any inconsistencies between the proposed project and applicable general plans and regional plans.

Sonoma County General Plan

Section 65402 (a) of the California Government Code of Regulations requires that public and private projects be reviewed for conformity with the applicable County General Plan. The Comprehensive Planning Division of the Sonoma County Permit and Resource Management Department has reviewed the proposed project (PPR12-06-05) and found it to be consistent with the Sonoma County General Plan. Relevant goals, objectives and policies are presented below along with a discussion of their applicability to the proposed project.

Open Space and Resource Conservation Element

Policy OSRC-8d: Allow or consider allowing the following uses within any streamside conservation area:

- (4) Road crossings, street crossings, utility line crossings.

Policy OSRC-8e: Prohibit, except as otherwise allowed by Policy OSRC-8d, grading, vegetation removal, agricultural cultivation, structures, roads, utility lines, and parking lots within any streamside conservation area. Consider an exception to this prohibition if:

- (3) The use involves only the maintenance or restoration of an existing structure or a non-structural use,

GOAL OSRC-19: Protect and preserve significant archaeological and historical sites that represent the ethnic, cultural, and economic groups that have lived and worked in Sonoma County, including Native American populations. Preserve unique or historically significant heritage or landmark trees.

Objective OSRC-19.1: Encourage the preservation and conservation of historic structures by promoting their rehabilitation or adaptation to new uses.

Policy OSRC-19a: Designate the County Landmarks Commission to review projects within designated historic districts.

Policy OSRC-19e: Refer applications that involve the removal, destruction or alteration of a structure or cemetery identified in a historic building survey to the Landmarks Commission for mitigation. Measures may include reuse, relocation, or photo document.

Policy OSRC-19h: Designate the County Landmarks Commission to administer a preservation program for stabilization, rehabilitation, and restoration of historic structures.

Policy OSRC-19i: Develop a historic resources protection program that provides for an ongoing process of updating the inventory of historic resources. Such a program should include:

- (1) Periodic historic building surveys,
- (2) Formalized recognition of the inventory of historic resources as recommended by the State Office of Historic Preservation, including rezoning to the historic Combining District (HD), and
- (3) Procedure for the protection of recognized historic resources for both ministerial and discretionary permits.

Discussion: The project includes appropriate analysis and mitigation of impacts to biotic habitat and riparian vegetation, consistent with OSRC-8d and 8e, as documented in the Biological Resources section of the Initial Study (Appendix B). The project would conflict with Goal OSRC-19 and objective OSRC 19.1 to preserve significant historical sites as noted in Cultural Resources Section 5B.7 Impact No. 1. The Landmarks Commission has reviewed the project consistent with OSRC-19a, 19e, and 19h. If the existing bridge is completely replaced, the Right-of-Way where the bridge existed should be rezoned to eliminate the HD Combining District, as described under Land Use and Planning Impact No. 2, above.

Circulation and Transit Element

GOAL CT-4: Provide and maintain a highway system capacity that serves projected highway travel demand at acceptable levels of service in keeping with the character of rural and urban communities.

Policy CT-3z: Require road construction projects to minimize their impacts on bicyclists and pedestrians through the proper placement of construction signs and equipment and by providing adequate, safe, well marked detours. Where it is safe to do so, allow bicyclists and pedestrians to pass through construction areas in order to avoid detours. Where two-way bicycle and pedestrian travel can be safely accommodated in a one-way traffic control zone, adequate signal shall be placed to alert motorists of bicycles and pedestrians in the lane.

Policy CT-6h: Carry out on an as needed basis projects that enhance traffic safety but do not significantly increase capacity, including but not limited to traffic control devices, curvature reduction, turn lanes at intersections, shoulder improvements, reconstruction and resurfacing.

Discussion: The proposed project incorporates mitigation for bicyclists and pedestrians during construction including construction area signage, consistent with Policy CT-2z, as described in Traffic Mitigation Measure 3 of the Initial Study (Appendix A). The project will not increase

traffic capacity consistent with Policy CT-6h and will be designed in keeping with the rural character of the community consistent with Goal CT-4.

Public Safety Element

GOAL PS-1: Prevent unnecessary exposure of people and property to risks of damage or injury from earthquakes, landslides and other geologic hazards.

Policy PS-1j: Encourage strong enforcement of State seismic safety requirements for design and construction of buildings and facilities subject to State and Federal standards, such as bridges, dams, power plants, hospitals and schools.

Policy PS-2e: Expand the County’s “zero net fill” requirements to address all areas of the unincorporated County that are located within the 100-year flood hazard zones.

Policy PS-1k: Incorporate measures to mitigate identified geologic hazards for all County roads, public facilities, and other County projects to an acceptable level.

Discussion: The intent of the project is to replace a deteriorating bridge to improve safety (consistent with Policy PS-1j, PS-1k and Goal PS-1). As discussed in the Hydrology and Water Quality section of the Initial Study (Appendix A), the proposed project would reduce flood hazards compared to the existing condition by raising the bridge elevation over the 100-year flood flow compared to the existing bridge, consistent with PS-2e with respect to “zero net fill.”

Metropolitan Transportation Commission Transportation 2035 Plan for the San Francisco Bay Area (2009)

No inconsistencies have been identified between the Metropolitan Transportation Commission Transportation 2035 Plan and the proposed project.

Sonoma County Transportation Authority 2009 Comprehensive Transportation Plan (CTP)

No inconsistencies have been identified between the CTP and the proposed project. The project is consistent with the CTP as a project that maintains the transportation network and provides for public safety.

SECTION 6 – OTHER CEQA REQUIRED CONSIDERATIONS

6.1 INTRODUCTION

Section 15126 of the CEQA Guidelines lists several subjects that must be addressed in an EIR. This section discusses the subjects or identifies other parts of the DEIR in which the subjects are discussed.

6.2 POTENTIALLY SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

The proposed project could result in nineteen potentially significant environmental effects within eight general environmental topics that are described along with mitigation to reduce the impacts to a level of insignificance (Appendix D). The visual setting is discussed in the Aesthetics Section of this EIR, Sections 5A, and includes mitigation that would reduce the potential impacts to visual resources to a level of insignificance.

6.3 SUMMARY OF SIGNIFICANT UNAVOIDABLE IMPACTS

The proposed project could result in significant and unavoidable effects include impacts to Cultural Resources, and Land Use and Planning as described in Sections 5B and 5C. Below is a summary of these impacts.

A. Cultural Resources

Cultural Resource Impact No. 1: Because the proposed project would remove and replace an existing bridge that is designated as historically significant by the County, and is eligible for inclusion on the California Register of Historical Resources, a **significant unavoidable (SU)** impact to historical resources is projected as a result of the proposed project. (I.e., Cause a substantial adverse change in the significance of a historical resource, or a unique archaeological resource).

B. Land Use and Planning

Land Use and Planning Impact No. 1: The loss of the bridge would conflict with the HD zoning policy and the replacement project may result in the need to rezone the site to remove the bridge from the HD Combining Zone.

6.4 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

Pursuant to Section 15126.2(d) of the CEQA Guidelines, an EIR must address whether a proposed project would directly or indirectly foster growth. This section analyzes whether the proposed project would directly or indirectly induce economic, population, or housing growth in the surrounding area.

The growth-inducing potential of a project would be significant if it were to foster growth or a concentration of population above what is assumed in local and regional land use plans. Significant growth-inducing impacts also could occur if a project were to provide infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies. Because the project is a bridge replacement project and would not add a new traffic lane or in any way add extra new capacity to Watmaugh Road, no growth-inducing impacts are expected to occur as a result of the proposed project.

6.5 EFFECTS NOT FOUND TO BE SIGNIFICANT

Section 15128 of the CEQA Guidelines requires an EIR to contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and, therefore, were not discussed in detail in the EIR. These are identified in Section 4 of this DEIR and discussed in more detail in the Initial Study (See Appendix D).

6.6 CUMULATIVE IMPACTS

Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. In addition, Section 21083(b), Public Resources Code, and CEQA Guidelines Section 15130 (b)(1)(A) and (B), emphasize the need to either consider and assess projects with related impacts, or to summarize projections contained in adopted general plans, when discussing cumulative impacts. The DEIR considered cumulative impacts under the Cultural Section and Aesthetics Section and concludes that neither result in cumulatively considerable impacts. The DEIR considered cumulative impacts within the Land Use and Planning Section and concluded that conflicts that exist with the existing zoning would not result in cumulatively considerable impacts.

6.7 SIGNIFICANT IRREVERSABLE ENVIRONMENTAL CHANGES

The CEQA Guidelines (Section 15126.2[c]) require an evaluation of the significant irreversible environmental changes that would be caused by a project. CEQA also requires decision makers to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve a project. This section addresses non-renewable resources and irreversible impacts associated with the proposed bridge replacement project.

To construct the project the use of building materials, such as concrete, steel, iron, and paper products (among several others) will be necessary as well as the use of fossil fuel based energy. Many of these construction related products and the fossil fuels are non-renewable resources and their use during the construction of the project is irreversible, since these resources cannot be recovered once they have been committed for the project. While that is the case, consumption of these resources would occur with any development and are not unique to the replacement of the bridge on Watmaugh Road. While the proposed project would cause some small-scale irreversible changes these are minor, insignificant, and justifiable given the project objectives.

6.8 INDIRECT EFFECTS

This section discusses CEQA Guidelines Section 15358 (a)(2) for addressing potential indirect impacts of a proposed project. Indirect effects are those impacts resulting from the development of a project (both construction and operation-related impacts) that occur either after implementation of the project or at some distance away from the project. General examples of indirect effects include impacts resulting from development that could change land use patterns, population density or growth rate, and result in impacts on environmental conditions, such as air quality, water quality and other natural systems.

The Proposed Project would not result in any indirect effects that would be significant after mitigation.

6.9 CONCLUSIONS

The Proposed Project would not result in any long-term significant, cumulative, growth-inducing, significant irreversible or indirect environmental impacts with implementation the mitigation measures outlined in Sections 4 (and Appendix D) ,5A, 5B, and 5C of this document.

SECTION 7 – ALTERNATIVES

7.1 INTRODUCTION

CEQA requires an evaluation of the comparative effects of a range of reasonable alternatives to the project that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project (CEQA Guidelines Section 15126.6(a)). The range of alternatives is governed by the “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice (Section 15126.6(f)). The significant effects of the alternatives shall be discussed, but in less detail than the significant effects of the proposed project (Section 15126.6(d)).

The EIR must assess the identified alternatives and determine which among the alternatives (including the project as proposed) the environmentally superior alternative is. One of the alternatives to be assessed is the “No Project” alternative (see discussion below under that heading). If the No Project alternative is identified as the environmentally superior alternative, CEQA requires that the EIR select an additional “environmentally superior alternative” from the remaining alternatives (*CEQA Guidelines* Section 15126.6(e)(2)).

7.2 PROJECT OBJECTIVES

The objectives of the proposed project were presented earlier in Section 3.2 of this EIR, and are repeated here for ease of reference.

- 1) Eliminate structural deficiencies and increase load limits.
- 2) Meet current seismic standards.
- 3) Provide standard shoulder width that would accommodate large loads and minimize frequent collisions with guard railing.
- 4) Provide improved road alignments and sight distance.
- 5) Eliminate the risk of failure due to non-redundant structural components of the bridge that could result in failure.

This chapter discusses the following alternatives to the proposed project:

- 1) No Project Alternative.
- 2) New Parallel Bridge Downstream, Existing Bridge Remains.
- 3) Rehabilitation of the Existing Bridge.
- 4) Replace Existing Bridge with Steel Arch Bridge
- 5) Rehabilitate Existing Bridge and Add a Parallel Bicycle/Pedestrians Bridge Downstream
- 6) Rehabilitate Existing Bridge and Add a New One-Way Bridge for Traffic and Bike/Pedestrians Downstream of Existing Bridge.

These alternatives are described below, including a discussion of their impacts and how they would differ from those under the proposed project. A discussion of the environmentally superior alternative is also included in this chapter.

The CEQA Guidelines require that an EIR briefly describe the rationale for selecting the alternatives to be discussed (Section 15126.6(a)), and suggest that an EIR also identify any alternatives that were considered by the lead agency but were rejected as infeasible (Section 15126.6(c)). This chapter of the EIR also addresses these issues.

7.3 FACTORS CONSIDERED IN THE SELECTION OF ALTERNATIVES

The alternatives addressed in this EIR were selected in consideration of one or more of the following factors:

- the extent to which the alternative would accomplish most of the basic objectives of the project (see “Project Objectives” above);
- the extent to which the alternative would avoid or lessen any of the identified significant adverse environmental effects of the project;
- the feasibility of the alternative, taking into account site suitability, and ability to meet funding criteria;
- the appropriateness of the alternative in contributing to a “reasonable range” of alternatives necessary to facilitate an informed choice; and
- the requirement of CEQA Guidelines to consider a “no project” alternative as well as an “environmentally superior” alternative (*CEQA Guidelines* Section 15126.6).

7.4 ALTERNATIVES CONSIDERED BUT REJECTED

Other alternatives were considered for inclusion in this EIR, but were rejected because they would not meet most of the project sponsor’s basic objectives, would not avoid or substantially lessen the potential impacts of the proposed project, and/or were considered infeasible. The following additional alternatives were considered and rejected, as described in detail below.

A. Seismic Retrofit Existing Bridge to meet the No Collapse Criteria

This alternative would include strengthening the existing bridge with structural steel, new isolation bearings, catcher blocks, seat extenders and other methods to meet a “no collapse” bridge standard. The isolator bearings would preserve most of the appearance of the existing bridge, while catcher blocks and seat extenders would require the ends of the trusses be covered with additional steel plates to strengthen them. This alternative would retain the existing bridge and minimize changes to the bridge appearance. Most of the retrofit work would occur on the underside of the bridge, which would not be visible

to motorists. While this alternative would arguably address seismic safety concerns with the bridge, a seismic retrofit would not meet the other objectives of the proposed project to address structural deficiencies related to scour of the bridge foundation, increase load limits and shoulder widths, improve sight distance and road alignment; but would retain the existing historic bridge, reducing the significant and unavoidable impact to cultural resources.

In 2002, a seismic retrofit project was terminated in response to Caltrans finding that degradation of the creek had exposed the bridge foundations, classifying the bridge as scour critical, which is a condition that could result in structural failure during future high winter flows.

Due to the existing weight limitations on the bridge, the narrow curving lanes on the bridge deck, substandard sight distance across the bridge, and lack of shoulders, the bridge is currently rated by Federal Highways Administration (FHWA) guidelines to be structurally deficient and functionally obsolete. The FHWA guidelines assess various essential structural components of the bridge such as the deck geometry, load rating, flood and scour risk, and overall structural condition. The seismic retrofit alternative would not meet the majority of the project objectives to address other structural and safety deficiencies noted above, and therefore, the retrofit alternative was determined infeasible and eliminated from further consideration in this EIR as not meeting the project objectives.

B. Construct a New Parallel Bridge Upstream, Existing Bridge to Remain in Place

This alternative would construct a new 32-foot wide concrete bridge, consisting of two 11-foot travel lanes and two 5-foot shoulders. In order to avoid the existing bridge and provide adequate sight distance, the road approaches to the bridge would consist of long sweeping curves requiring acquisition of private residential land. The existing bridge would be closed to all traffic, including bikes and pedestrians, and would receive minimal maintenance to keep it intact as a County Landmark. Because the bridge does not qualify for the National Register of Historic Places, federal funding would not be available for maintenance activities. Once the bridge is replaced maintenance funding would have to come from other funding sources.

While this alternative would meet all of the objectives of the proposed project and would avoid the need for removal of the historic bridge, it would require the acquisition of substantial right-of-way (ROW), the removal of two houses on the northwest side of the bridge, and an outbuilding on the northeast side of the bridge. In addition, this alignment shifts the road closer to a house on the northeast side of the bridge, likely resulting in an increase in noise levels. This alternative would also result in substantially greater impacts to riparian vegetation as compared to the proposed project. Since this alternative would require the removal of residences, result in elevated noise levels to a remaining residence, and require additional right-of-way, it was determined to have greater significant and unavoidable impacts on land use and noise than the proposed project.

While this alternative would avoid the significant unavoidable impact to cultural resources and the HD policies by retaining the bridge it is likely to introduce new significant impacts to noise and land use and was dropped from further consideration in the EIR.

7.5 ASSUMPTIONS AND METHODOLOGY

The anticipated means for implementation of the alternatives can influence the assessment and/or probability of impacts for those alternatives. For example, a project may have the potential to generate significant impacts, but considerations in project design may also afford the opportunity to avoid or reduce such impacts. The alternatives analysis is presented as a comparative analysis to the proposed project and assumes that all applicable mitigation measures proposed for the project would apply to each alternative. The following alternatives analysis compares the potential significant environmental impacts of six alternatives with those of the proposed project for each of the environmental topics analyzed.

7.6 DESCRIPTION OF ALTERNATIVES

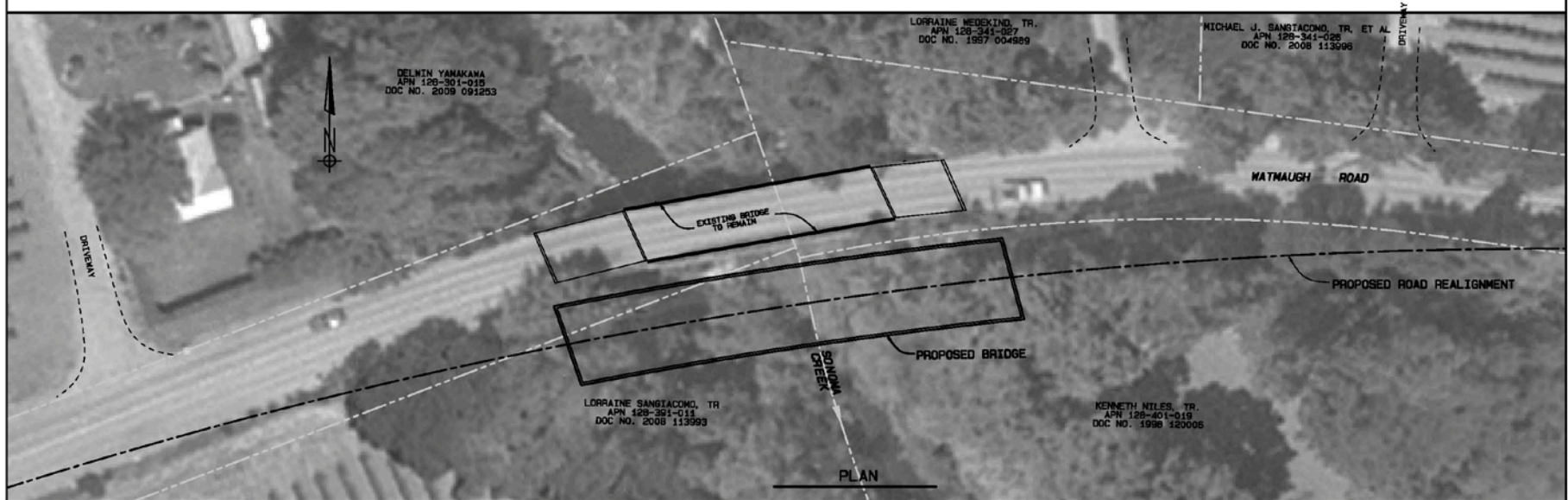
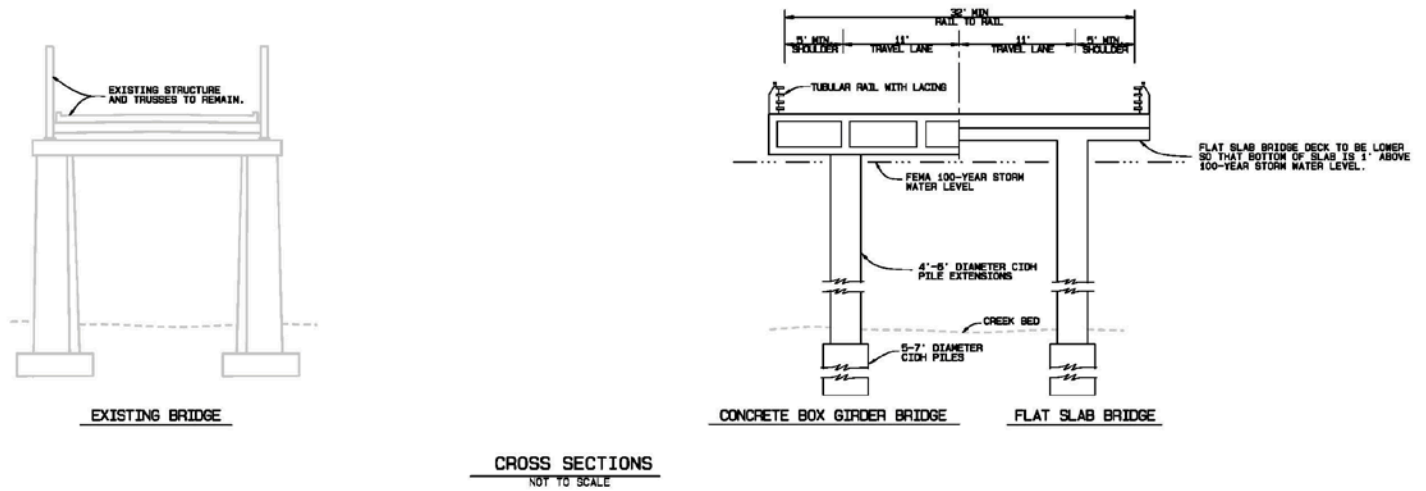
Alternative 1 - No Project

Under the No Project Alternative, the existing bridge would not be replaced. The bridge would be maintained to allow for its continued use and would continue to be seismically inadequate and subject to damage or collapse under strong seismic conditions. This alternative could expose people and property to risk of injury and may be considered a significant impact. In addition, since the current bridge is rated by Caltrans as Functionally Obsolete and designated as Scour Critical, at some point in the future, as the bridge continues to degrade or becomes a safety concern for motorists, the costs to maintain the bridge may become too great and require closure of the bridge permanently.

Alternative 2 - Construction of a Downstream Bridge Leaving Existing Bridge In-Place

Alternative 2 would leave the existing bridge in place and public access to it may be considered. A new bridge for vehicle traffic would be constructed adjacent to and downstream of the existing bridge (see Figure 4). The new bridge would be a two span pre-stressed concrete box girder or slab bridge that would be approximately 185 feet in length, and would be 32 feet wide, consisting of two 11-foot travel lanes and two 5-foot shoulders. The approach roadway width would also be widened to about 32 feet until it conforms to the existing roadway at each end of the bridge. Estimated construction costs for this alternative are \$4 million.

To construct the new bridge, Cast in Drilled Hole (CIDH) concrete piers would be drilled into the banks of the creek at the location of the abutments and at the center pier, with the number and size of the CIDH piers to be determined by the geotechnical investigation.



**WATMAUGH ROAD BRIDGE OVER SONOMA CREEK
REPLACE BRIDGE IN ALTERNATE LOCATION DOWNSTREAM**

Plan View of Alternative 2 Showing the New Bridge Downstream of the Current Alignment

FIGURE 4

A new roadway alignment would be required in order for the new bridge to connect with Watmaugh Road. Acquisition of neighboring private property would be necessary to accommodate the new alignment of the bypass bridge and associated approaches from Watmaugh Road. This alternative meets the objectives of the proposed project, and retains the existing County Landmark Bridge. As opposed to the upstream alternative that was rejected as infeasible above, no homes would be displaced by this option. Additional right-of-way would be required to the south accommodate the new bridge but would not be expected to adversely affect building setbacks or minimum lot size requirements.

Aesthetics

Due to the overall change in the setting caused by placing an additional 32-ft wide bridge at the site, this alternative would alter the physical setting much more than the proposed project (Figures 5-6). Using the same criteria, the PRMD Visual Assessment Guidelines, which were applied to the proposed project, this alternative would result in a significant unavoidable impact because the large new concrete bridge would detract from the existing rural feel of the area. While the new bridge would in no way block views of the historic bridge the modern concrete bridge would become co-dominant with the existing bridge reducing the quality of the view dramatically. This alternative would have a greater impact to aesthetics than the proposed project and would result in a significant unavoidable impact to the scenic resources found at the site.

Biological Resources

This alternative would require the removal of a greater amount of riparian vegetation on both banks compared to the proposed project, including several large oaks and bay trees for the new road alignment, and to provide access to the creek channel to construct the new bridge. This alternative would result in a new permanent loss of bank habitat due to the placement of new abutments and piers, reducing the quality of habitat overall in Sonoma Creek.

The additional bridge would also result in indirect impacts due to the temporary loss of riparian vegetation that provides shading to retain lower water temperatures and essential habitat for California freshwater shrimp and other sensitive species. As a result, the impacts would require a much greater revegetation effort to offset the loss of vegetation. The impacts to California freshwater shrimp, steelhead and possibly other sensitive species may require compensatory mitigation through purchase of mitigation bank credits, obtaining conservation easements, or by other means. This alternative would have a greater impact to biological resources than the proposed project.



Photograph A



Photographic Simulation B

Existing Bridge (A) and Proposed Bridge Replacement Project (B) Downstream Showing Pony Truss Retained . View Looking Westerly.

FIGURE 5



Photograph A



Photographic Simulation B

Existing Bridge (A) and Proposed Bridge Replacement Project (B) Downstream Showing Pony Truss Retained . View Looking Easterly.

FIGURE 6

Cultural Resources

Although this alternative would retain the existing bridge, it would alter the setting dramatically, which would be an impact to the integrity of the bridge and therefore its historic value. However, the remaining elements of historical integrity (location, design, materials, workmanship, feeling, and association) would remain intact. The alteration to the setting of the bridge can be reduced by retaining as much of the riparian area between the two bridges as possible and planting additional trees in the space available. With the additional planting to match the existing riparian, the impact to the historic integrity of the bridge would be at a level that would be less than significant and would generally avoid the significant impact to the historic resource associated with the proposed project.

Land Use

This alternative saves the existing bridge, and thus would no longer be in conflict with the policies within the HD zoning district.

Noise

This project alternative moves the bridge further from three homes, and closer to one home, on the southeast side of the bridge. A noise study was conducted to determine if the shift in the roadway closer to this receptor resulted in a significant impact (Illingworth and Rodkin, Inc., September 5, 2012) (Appendix G). This study determined that, although noise levels increase slightly at this receptor, they would not be expected to exceed the General Plan noise thresholds for noise on public roadways and therefore the potential noise impact from this alternative would be less than significant.

Alternative 3 - Rehabilitate the Existing Bridge

This alternative would consist of replacing the existing concrete piers, adding structural steel over much of the existing steel lattice-work on the trusses, (essentially boxing in the trusses in new steel), strengthening the floor beams, replacing the existing bridge deck, rehabilitating the abutments, and repainting the structural steel. This alternative would address more of the existing structural and functional problems of the existing bridge when compared to the seismic retrofit, but would also result in major physical changes to the appearance of the historic bridge.

This alternative meets the majority of the objectives of the proposed project objectives (1, 2 and 5 listed above) and would retain the existing bridge trusses and other more minor elements of the existing bridge. Estimated construction costs for this alternative is 6.1 million dollars and currently would not be eligible for federal funding.

Aesthetics

This alternative would have a very similar impact to aesthetics than the proposed project with the exception of the new structural steel added to the bridge covering much of the original detail of the bridge trusses. While the bridge detail is detectable up-close and at

low speed and would likely appear to the traveling public as simply a newly painted steel truss bridge. The visual impacts to the riparian setting within Sonoma Creek would be the same as the proposed project and would not result in a significant unavoidable impact to scenic resources found at the site.

Cultural Resources

Although this alternative would retain the existing historic structure the extensive alterations on the bridge would result in major changes to the integrity of materials, workmanship, and feeling of the bridge that would essentially be equal to the impacts on historic resource from the proposed project and would also result in substantial adverse impact to the historical significance of the bridge.

Land Use

This alternative retains the existing bridge, and thus would no longer be in conflict with the policies within the HD zoning district. While this is the case, the intent of the HD is to protect the bridge from physical impacts and degradation. Conflicts with policies and plans in themselves are not viewed in the same manner as physical effects to historic resources that are described above under Cultural Resources.

Alternative 4 - Replace Existing Bridge with Steel Arch Bridge

This alternative would construct a new bridge with design elements that would be integrated into the structure and function of the bridge. This bridge design would essentially have the same impacts as the proposed project except existing trusses would not be retained for reuse on the new bridge adding some additional impact to historic resources. This alternative would meet all of the objectives of the project but would not reduce any significant unavoidable impacts compared to the proposed project. A new steel arch bridge would have more of a contrast to the setting and thus would have a slightly greater aesthetic impact than the project. Impacts to cultural resources would also be greater since no part of the historic structure would be retained. A new steel arch bridge would likewise conflict with policies of the HD zoning to preserve the existing bridge and could result in significant changes to the viewshed. Additionally if the County opted to fund the difference in cost with the FHWA, the cost to the County would likely require a good deal of time, possibly years to attain the needed funding, leaving the substandard structure in place for an indeterminate period. Possible road closure in the interim period is also likely with secondary traffic impacts. Estimated construction costs for this alternative are 8-10 million dollars.

Alternative 5 - Rehabilitate Existing Bridge and Add a Parallel Bicycle/Pedestrians Bridge Downstream

This alternative would rehabilitate the existing bridge (see discussion above under Alternative 3 above) and construct an approximately 10-foot wide separate bicycle/pedestrian crossing. The new crossing would be placed downstream of the

existing bridge, but either way would require the purchase of additional ROW from adjacent parcels. As described previously, rehabilitation of the existing bridge would substantially alter its historic value and appearance resulting in significant unavoidable impact to its historical significance, similar to the proposed project. Construction of a downstream bike/pedestrian bridge would further degrade the riparian habitat and the visual character of the bridge by altering the site setting likely resulting in a new significant unavoidable impact similar to Alternative 2 (see above). This project alternative would not reduce impacts when compared to the proposed project. Additionally if the County opted to fund the difference in cost with the FHWA, the cost to the County would likely require a good deal of time, possibly years to attain the needed funding, leaving the substandard structure in place for an indeterminate period. Possible road closure in the interim period is likely with potential for secondary traffic impacts.

Alternative 6 - Rehabilitate Existing Bridge and Add a One-Way Bridge for Traffic and Bicycle/Pedestrians Downstream of Existing Bridge

This alternative would rehabilitate the existing bridge (see discussion above under Alternative 3 regarding rehabilitation) and construct an approximately 16-18 foot wide, one lane bridge to provide a single eastbound traffic lane and add a 5-foot shoulder for bicycles and pedestrians. The bridge would require the purchase of additional ROW from adjacent parcels. The rehabilitation of the existing bridge would substantially alter the appearance and characteristics of this resource and would result in a substantial adverse impact to the historic integrity of the bridge. The construction of a single-lane bridge would further degrade the riparian habitat along Sonoma Creek as well as the visual character of the bridge by altering the setting. In addition, neither the rehabilitation nor the separate one-lane bridge are eligible for federal funding and would require local funding that is currently unavailable likely leaving the existing deficient bridge in place until funding was made available. Therefore, this alternative would not reduce the significant unavoidable impacts to cultural resources and would add new impacts to visual and biotic resources. Additionally if the County opted to fund the project without federal funding, it would require a good deal of time, possibly years to attain the needed funding, leaving the substandard structure in place for an indeterminate period. Possible road closure in the interim period is likely with potential for secondary traffic impacts.

Table 7.2 Comparison of the Project and Alternatives

Proposed Project	Alternative 1 - No Project	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Description						
Replace the existing bridge with a new concrete bridge in the current alignment and attach the existing pony trusses to the new bridges as a nonstructural feature.	The existing bridge would not be replaced	Construction of a Downstream Bridge Leaving Existing Bridge In Place	Rehabilitate the Existing Historic Bridge	Replace Existing Bridge with Steel Arch Bridge	Rehabilitate Existing Bridge and Add a Parallel Bicycle Pedestrians Bridge Downstream	Rehabilitate Existing Bridge and Add a One-Way Bridge for Traffic and Bicycle/Pedestrians Downstream
Results of Analysis						
<p>Significant Unavoidable Cultural Resources impact due to loss of historic bridge.</p> <p>With the incorporation of mitigation that includes the reattachment if the existing pony truss, the impacts to Aesthetic Resources is reduced to a level of less than significant.</p> <p>Would be in conflict with the HD policies</p>	<p>The bridge would continue to be seismically inadequate and subject to damage or collapse during an earthquake.</p> <p>Adequate funding to maintain the bridge may be unavailable and/or the condition of the bridge may degrade to a point where permanent closure would be necessary.</p> <p>This alternative could expose people and property to risk of injury and would be considered a significant impact.</p> <p>This alternative has the least environmental effects when compared to the proposed project and the other alternative.</p>	<p>Due to the need for a new road alignment the impacts to the riparian community in Sonoma Creek would be impacted much more severely and require a greater restoration and compensatory mitigation effort.</p> <p>Due to the greater loss of trees to create a new road alignment across Sonoma Creek, Alternative 2 would have a Significant Unavoidable impact to the views in the project vicinity and would thus have a much greater impact to aesthetics than the proposed project.</p> <p>May result in elevated traffic noise to the downstream residence.</p> <p>The historic bridge would be retained and the Significant Unavoidable impact to Cultural Resources could be mitigated.</p>	<p>Significant Unavoidable Cultural Resources impact due to impacts to the historic bridge.</p> <p>Retains the existing bridge, and would no longer be in conflict with the HD policies.</p>	<p>Significant Unavoidable Cultural Resources impact due to loss of historic bridge remains the same as the proposed project.</p> <p>This alternative would not reduce impacts when compared to the proposed project.</p> <p>Would be in conflict with the HD policies</p>	<p>Significant Unavoidable Cultural Resources impact due to impacts to the historic bridge.</p> <p>Due to the need for a new alignment the impacts to the riparian community in Sonoma Creek would be impacted much more severely and require a greater restoration and compensatory mitigation effort</p>	<p>Significant Unavoidable Cultural Resources impact due to impacts to the historic bridge.</p> <p>Due to the need for a new road alignment the impacts to the riparian community in Sonoma Creek would be impacted much more severely and require a greater restoration and compensatory mitigation effort.</p> <p>May result in elevated traffic noise to the downstream residence.</p> <p>Reduced impact to traffic circulation during construction of the new bridge.</p>

Proposed Project	Alternative 1 - No Project	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Conclusions						
<p>Pros: Meets all of the objectives of the project's sponsor. Eliminates the risks to the public of injury or harm from collapse of the bridge.</p> <p>Cons: Would result in Significant Unavoidable impacts to Cultural Resources from the loss of the historic bridge and conflicts with HD policies.</p>	<p>As discussed previously, Section 15126.6 of the <i>CEQA Guidelines</i> requires that an environmentally superior alternative be selected other than the No Project Alternative</p> <p>Would not eliminate the risks to the public of injury or harm from collapse of the bridge.</p>	<p>Pros: Meets all of the objectives of the project's sponsor. Eliminates the risks to the public of injury or harm from collapse of the bridge</p> <p>Reduces the Significant Unavoidable impact, to Cultural Resources to a level that would be less than significant.</p> <p>Reduces short-term impacts to traffic circulation during construction of the new bridge.</p> <p>Cons: Would result in a new Significant Unavoidable impact to Aesthetic Resources.</p> <p>Would also result in much greater impacts to riparian impacts but with restoration can be mitigated to LTS.</p> <p>May result in elevated traffic noise to the downstream residence.</p>	<p>Pros: Meets the majority of the project objectives. Eliminates the risks to the public of injury or harm from collapse of the bridge.</p> <p>Cons: Would result in Significant Unavoidable impacts to Cultural Resources from the modification of the historic bridge.</p> <p>Would not reduce impacts below the level of the proposed project.</p>	<p>Pros: Meets all of the objectives of the project's sponsor. Eliminates the risks to the public of injury or harm from collapse of the bridge</p> <p>Cons: Would result in Significant Unavoidable impacts to Cultural Resources from the loss of the historic bridge and conflicts with HD policies.</p> <p>Would not reduce impacts below the level of the proposed project.</p>	<p>Pros: Meets the majority of the project objectives. Eliminates the risks to the public of injury or harm from collapse of the bridge</p> <p>Cons: Would result in Significant Unavoidable impacts to Cultural Resources from the modification of the historic bridge</p> <p>Would result in a new Significant Unavoidable impact to Aesthetic Resources.</p> <p>Would result in greater impacts to riparian but with restoration can be mitigated to LTS.</p>	<p>Pros: Meets the majority of the project objectives. Eliminates the risks to the public of injury or harm from collapse of the bridge</p> <p>Reduces short-term impacts to traffic circulation during construction of the new bridge.</p> <p>Cons: Would result in Significant Unavoidable impacts to Cultural Resources from the modification of the historic bridge</p> <p>Would result in a new Significant Unavoidable impact to Aesthetic Resources.</p> <p>Would result in greater impacts to riparian but with restoration can be mitigated to LTS.</p> <p>May result in elevated traffic noise to the downstream residence.</p>

7.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

This section summarizes the environmental advantages and disadvantages associated with the proposed project and the alternatives. Based upon this discussion, the environmentally superior alternative is selected as required by the CEQA. In addition to the discussion and comparison of impacts of the proposed project and the alternatives, Section 15126.6 of the *CEQA Guidelines* requires that an "environmentally superior" alternative be selected and the reasons for such a selection disclosed. An alternative would be considered superior to the proposed project if there is a reduction in impact classification. In cases where the impact resulting from an alternative is in the same class as for the proposed Project, differences in severity of the impact are analyzed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least amount of significant impacts. In this case, Alternative 1 (No Project Alternative) would result in the least amount of significant environmental impacts. However, Section 15126.6 of the *CEQA Guidelines* requires that an environmentally superior alternative be selected other than the No Project Alternative.

Overall, based upon the alternatives analysis provided above and the Alternatives Comparison Table 7-2, Alternatives 5 and 6 (rehabilitate existing bridge and add new bike and pedestrian bridge and rehabilitate existing and add new bike/ pedestrian and traffic bridge) when compared to the proposed project, would result in an additional significant unavoidable impact. Each alternative would still result in a significant impact to the existing bridge, and would also result in an addition new impact to aesthetic resources from adding a new modern bridge structure to the visual setting.

Alternatives 3 and 4, rehabilitate existing bridge and replace with a new steel arch bridge respectively, essentially have the same impacts as the proposed project and would not avoid or otherwise mitigate the impact to the historic Watmaugh Road Bridge.

The proposed project and Alternative 2 would result in the same number of significant unavoidable impacts. Alternative 2 would retain the existing Watmaugh Road Bridge that has local Landmark status and has recently been found eligible for the State Register of Historical Places. While that is the case, due to the scale of placing a new 32-ft wide concrete bridge downstream of the existing bridge, Alternative 2 would alter the physical environment more than the proposed project and result in a new significant unavoidable impact to the site as a scenic resource. Alternative 2 would also increase the severity of the biological impacts to Sonoma Creek and result in the loss of vegetation that provides essential habitat to listed California freshwater shrimp, salmonid, and other sensitive species.

Because Alternative 2 would alter the physical environment more than the proposed project, result in a new significant unavoidable impact to scenic resources, and would increase the severity of the biological impacts from this project, the proposed project is considered to be environmentally superior to Alternative 2.

SECTION 8 - PREPARERS AND PERSONS CONSULTED

8.1 REPORT PREPARATION

This EIR was prepared by the following people:

Sonoma County Staff

Rich Stabler, Permit and Resource Management Department
Chris Seppeler, Permit and Resource Management Department
Laura Peltz, Permit and Resource Management Department
Crystal Acker, Permit and Resource Management Department
Jennifer Barrett, Permit and Resource Management Department

Robert Pittman, County Counsel's Office
Levi Gurule, Department of Transportation and Public Works
Tom O'Kane, Department of Transportation and Public Works
Cindy Rader, Department of Transportation and Public Works

Consultants

Tom Origer & Associates
Archaeology/Historical Research
P.O. Box 1531
Rohnert Park, CA
94927

Illingworth & Rodkin, Inc.
Noise Consultants
505 Petaluma Blvd. South
Petaluma, CA 94952

Moffatt and Nichol
Engineering Consultants
2185 N. California Blvd, Suite 500
Walnut Creek, CA 94596-3500

8.2 AGENCIES AND PERSONS CONSULTED

1. California Department of Fish and Game – Adam McKannay
2. Sonoma County Landmarks Commission – Yolanda Solano (Staff).

SECTION 9 – REFERENCES

- 1) PRMD staff evaluation based on review of the project site and project description.
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- 4) *BAAQMD CEQA Guidelines; Bay Area Air Quality Management District*; April 1999; California Air Resources Board (CARB) <http://www.arb.ca.gov/>
- 5) *Sonoma County General Plan GP 2020 Sonoma County Board of Supervisors*, December 8, 2009.
- 6) *Alquist-Priolo Special Studies Zones*; State of California; 1983.
- 7) *Flood Insurance Rate Maps*, Federal Emergency Management Agency.
- 8) Special Report 120, California Division of Mines and Geology; 1980.
- 9) *General Plan Consistency Determination*, (65402 Review), Sonoma County Permit & Resource Management Department 5/2012.
- 10) *Standard Specifications*, State of California Department of Transportation, available online:http://www.dot.ca.gov/hq/esc/oe/specs_html.
- 11) *American National Standard for Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices, Pruning* (ANSI A300 (Part 1)-2008 Pruning), American National Standard Institute (ANSI) and National Arborist Association (NAA).
- 12) *Best Management Practices: Tree Pruning*, International Society of Arboriculture (ISA), 2008.
- 13) *Tree Protection and Replacement Ordinance* (Ordinance No. 4014); Sonoma County.
- 14) *Valley Oak Protection Ordinance* (Ordinance No. 4991); Sonoma County, December 1996.

- 15) *Manual of Standards for Erosion and Sediment Control Measures*, Association of Bay Area Governments; May, 1995.
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- 18) *Sonoma County Congestion Management Program*, Sonoma County Transportation Authority; December 18, 1995.
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- 21) *State of California Office of Historic Preservation, (SHIPO) concurrence letter to FHWA* (2002).
- 22) *Sonoma County General Plan*, (2020), as amended and EIR.
- 23) *Noise Study for the Watmaugh Road Bridge Replacement Project* (2012), Illingworth & Rodkin, Inc.
- 24) *California Natural Diversity Data Base (CNDDDB)*. California Department of Fish and Game, Wildlife and Habitat Data Analysis Branch, Sacramento. June 30, 2012.
- 25) *The Jepson Manual: Higher Plants of California*. James Hickman, Ed. University of California Press, Berkeley and Los Angeles, California. 1993.
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<http://www.bridgehunter.com/>

APPENDIX A ACRONYMS AND ABBREVIATIONS

ACRONYMS AND ABBREVIATIONS APPENDIX A

ADT -Average Daily Trips

CEQA - California Environmental Quality Act.

COUNTY – Also refers to Sonoma County (as a geographical boundary) and County of Sonoma (as an entity).

dB - DECIBEL– a unit used to express the intensity of a sound wave.

dBA - A-WEIGHTED DECIBELS – Represents an expression of relative loudness perceived by the human ear.

DEIR - Draft Environmental Impact Report

DTPW- Department of Transportation and Public Works

ERC - Environmental Review Committee

FHWA - Federal Highway Administration – The United States government agency that is responsible for administering federal highway transportation programs.

FEIR - Final Environmental Impact Report

GP- Sonoma County General Plan 2020

LOS – Level of Service – an indicator of how well traffic is able to negotiate a stretch of roadway or an intersection. This is typically of concern during peak flow hours.

PRMD - Permit and Resource Management Department.

NHPA – National Historic Preservation Act

NPDES – National Pollution Discharge Elimination System

NWIC – Northwest Information Center, Sonoma State University, Rohnert Park, California

SA – sufficiency rating - is an overall “health” indicator developed by the Federal Highway Administration (FHWA).

APPENDIX B NOTICE OF PREPARATION (NOP)



COUNTY OF SONOMA

PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

2550 Ventura Avenue, Santa Rosa, CA 95403
(707) 565-1900 FAX (707) 565-1103

NOTICE OF PREPARATION of DRAFT ENVIRONMENTAL IMPACT REPORT

August 7, 2012

Project Title: Watmaugh Road Bridge Replacement Project

Project Applicant: Sonoma County Department of Transportation and Public Works DTPW

Sonoma County proposes to remove the existing bridge on Watmaugh Road over Sonoma Creek, south of the city of Sonoma, and construct a new bridge on the same alignment. The County, as Lead Agency under CEQA, has prepared an Initial Study, attached. An Initial Study is a preliminary analysis prepared by the Lead Agency to identify potentially significant environmental impacts of the proposed project and to determine whether an Environmental Impact Report (EIR) or a Negative Declaration must be prepared. Based on the results of this Initial Study, the County's Environmental Review Committee has determined that the project could have significant environmental impacts, and that an EIR must be prepared.

If you wish to comment on the environmental issues that should be addressed in the EIR, please send written comments to Rich Stabler at the address on the letterhead.

If you are a responsible agency, we need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may want to consider the EIR prepared by the County when considering your permit or other approval for the project.

Due to the time limits mandated by State Law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice.

If you would like additional information on the project or the environmental review process, please call Rich Stabler, at (707) 565-8352.

Rich Stabler
Environmental Specialist
Phone: (707) 565-8352
Fax: (707) 565-83
Email: Rich.Stabler@Sonoma-County.org
Attachment: Initial Study

APPENDIX C RESPONSES TO NOP

Letter - California Department of Fish and Game, September 4, 2012

Letter – Department of Transportation, August 21, 2012

Letter- Citizens for the Preservation of Sonoma Historic Bridges, August 22, 2012

Letter – Ron & Marilyn Kiser, August 22, 2012

Summary Action of the Environmental Review Committee, August 7, 2012



State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.dfg.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



September 4, 2012

Mr. Rich Stabler
Sonoma County Permit and
Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Mr. Stabler:

Subject: Watmaugh Road Bridge Replacement Project, Notice of Preparation,
SCH #2012082037, Sonoma County

The Department of Fish and Game (DFG) has reviewed the Notice of Preparation (NOP) for the Watmaugh Road Bridge Replacement (Project). The NOP was received in our office on August 13, 2012.

DFG is identified as a Trustee Agency pursuant to the California Environmental Quality Act (CEQA) Section 15386 and is responsible for the conservation, protection, and management of the State's biological resources. DFG is submitting comments on the NOP as a means to inform the Lead Agency of our concerns regarding sensitive resources which could potentially be affected by the Project.

The Project proposes to replace the existing bridge where Watmaugh Road crosses Sonoma Creek with a new bridge consisting of a two span pre-stressed concrete box girder that would be approximately 185 feet long and 32 feet wide. To construct the new bridge, Cast-In-Drilled-Hole (CIDH) concrete piers would be drilled into the banks of the creek at the locations of the abutments and at the center pier, with the number and size of the CIDH piers to be determined prior to construction, based upon the results of a geotechnical report. Additional rock slope protection (RSP) may be included with the proposed bridge replacement. Prior to removal of the existing bridge, a debris catching platform would be constructed under the bridge. The platform would be supported by the existing structure over the water and would function to prevent concrete debris from falling into the creek during removal of the existing bridge deck. Vegetation removal will be kept to the minimum necessary to complete the Project and will occur during the fall and winter to avoid the migratory bird nesting season.

California Freshwater Shrimp

The NOP indicates that California freshwater shrimp (*Syncaris pacifica*) have been observed within the Project site. California freshwater shrimp are federally and state listed as endangered, occurring only in a limited number of lowland streams in Marin, Sonoma and Napa counties. Freshwater shrimp habitat requirements include undercut banks,

exposed roots, woody debris and overhanging vegetation. Due to these specific habitat requirements, DFG recommends that the proposed Project include the following design considerations:

- The County should perform a hydraulic analysis of bridge abutment and pier locations in order to include design elements that would minimize scour that may negatively affect existing freshwater shrimp habitat, including pools and undercut banks.
- Bridge abutment and pier locations should avoid low velocity pools and run habitats occupied by shrimp including all areas with undercut banks or vegetation overhanging into the water.

DFG also recommends the following mitigation measures be included during the construction phase of the project:

- Prior to the onset of work at the Project site, a DFG- and U.S. Fish and Wildlife Service (USFWS)-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the shrimp and its habitat, the importance of the shrimp and its habitat, the general measures that are being implemented to conserve the shrimp as they relate to the work site, and the work site boundaries where construction may occur.
- Only DFG- and USFWS-approved biologists shall participate in the capture, handling, and monitoring of shrimp. This biologist should be on-site during installation of dewatering systems, work pads and temporary culverts to insure that harm to freshwater shrimp is minimized. The biologist should also be on-site during any other project phase that may impact shrimp habitat. DFG- and USFWS-approved biologist shall be present at the work site until such time as all removal of shrimp, instruction of workers, and habitat disturbance associated with the Project have been completed. The DFG- and USFWS-approved biologist shall have the authority to halt any action that might result in the loss of any shrimp or its habitat. If work is stopped, the DFG- and USFWS-approved biologist shall immediately notify DFG and USFWS.
- Care shall be taken during the placement or movement of materials on the stream banks to prevent any damage to undercut stream banks and to minimize damage to any streamside vegetation. Streamside vegetation overhanging into pools or runs shall not be removed, trimmed, or otherwise modified.
- No dumping of dead trees, yard waste, debris or brush shall occur in shrimp streams, which may result in oxygen depletion of aquatic systems.
- If any freshwater shrimp habitat, including streamside vegetation overhanging pools, or undercut banks, must be modified in order to complete the Project, a qualified stream restoration ecologist should prepare a Riparian Replanting and Stream Restoration Plan in order to return freshwater shrimp habitat to pre-project conditions.

Western Pond Turtle

Western pond turtles are known to occur within Sonoma Creek, basking on the banks and fallen logs, and nesting in the upper riparian area. A pre-construction survey for western pond turtles should be conducted prior to beginning work by a DFG-approved qualified biologist. This survey should include a focused survey for adult turtles and nest sites. Any adults found within the work area should be relocated to suitable off-site habitat by a qualified biologist. Nest sites discovered during the pre-construction survey or anytime during construction shall be avoided until vacated, as determined by a qualified biologist. On-going monitoring during construction should occur to ensure turtles have not moved back into the area and that they are not being impacted by Project activities.

Nesting Birds

If any nesting birds are documented within or adjacent to the Project area, DFG recommends that prior to any Project activities, protective buffers be established surrounding the nest to avoid "take." Project-related activities requiring buffers to avoid disturbance include, but are not limited to, equipment staging, ground-disturbing and construction activities, coffer dam installation, and tree pruning and removal. At minimum, buffers of 50 feet for small songbirds and 500 feet for larger species (e.g. threatened and endangered species, and all raptors, including both diurnal and nocturnal species) designated by the biologist shall be avoided until the nests have been vacated.

California Endangered Species Act

Please be advised that a California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit.

Lake and Streambed Alteration Agreement

Each of the three Alternatives for the Project proposes a change to the bed, channel, or bank (which may include associated riparian resources) of Santa Rosa Creek and will require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of an LSAA is subject to CEQA. DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the LSAA notification process, please access our website at <http://www.dfg.ca.gov/habcon/1600/> or to request a notification package, contact the Lake and Streambed Alteration Program at (707) 944-5520.

Mr. Rich Stabler
September 4, 2012
Page 4

Biological Assessment

Please provide a complete assessment (including but not limited to type, quantity and locations) of the habitats, flora and fauna within and adjacent to the project area, including endangered, threatened, and locally unique species and sensitive habitats. The assessment should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the Project. Rare, threatened and endangered species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, Section 15380). DFG recommended survey and monitoring protocols and guidelines are available at <http://www.dfg.ca.gov/wildlife/species/surveymonitor.html>.

DFG appreciates the opportunity to comment on the Watmaugh Road Bridge Replacement Project. DFG staff is available to meet with you to further clarify our comments and provide technical assistance on any changes necessary to protect resources. If you have any questions, please contact Mr. Adam McKannay, Environmental Scientist, at (707) 944-5534; or Ms. Karen Weiss, Senior Environmental Scientist, at (707) 944-5525.

Sincerely,



 Scott Wilson
Acting Regional Manager
Bay Delta Region

cc: State Clearinghouse

RECEIVED

EDMUND G. BROWN, Jr., Governor

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-6053
FAX (510) 286-5559
TTY 711

AUG 22 2012

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

*Flex your power!
Be energy efficient!*

August 21, 2012

SON012592

SON-12-39.4

Mr. Rich Stabler
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Mr. Stabler:

Watmaugh Road Bridge Replacement Project – Notice of Preparation

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Watmaugh Road Bridge Replacement project. The following comments are based on the Notice of Preparation (NOP). As the lead agency, the County of Sonoma (County) is responsible for all project mitigation, including any needed improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. This information should also be presented in the Mitigation Monitoring and Reporting Plan of the environmental document. Since an encroachment permit is required for work in the state right of way (ROW), and Caltrans will not issue a permit until our concerns are adequately addressed, we strongly recommend that the County work with both the applicant and Caltrans to ensure that our concerns are resolved during the California Environmental Quality Act (CEQA) process, and in any case prior to submittal of a permit application. Further comments will be provided during the encroachment permit process; see the end of this letter for more information regarding encroachment permits.

Traffic Impact Study

We encourage the County to coordinate preparation of the Traffic Impact Study (TIS) with our office, and we would appreciate the opportunity to review the scope of work. Please include the information detailed below in the TIS to ensure that project-related impacts to state roadway facilities are thoroughly assessed. The Caltrans "*Guide for the Preparation of Traffic Impact Studies*" should be reviewed prior to initiating any traffic analysis for the project; it is available at the following website: http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

The TIS should include:

1. Vicinity map, regional location map, and a site plan clearly showing project access in relation to nearby state roadways. Ingress and egress for all project components should be clearly identified. The state ROW should be clearly identified.
2. The maps should also include local roads and intersections, parking, and transit facilities.
3. Project-related trip generation, distribution, and assignment. The assumptions and methodologies used to develop this information should be detailed in the study, and should be supported with appropriate documentation.
4. Average Daily Traffic, AM and PM peak hour volumes and levels of service (LOS) on all significantly affected roadways, including crossroads and controlled intersections for existing, existing plus project, cumulative and cumulative plus project scenarios. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect study area roadways and intersections. The analysis should clearly identify the project's contribution to area traffic and degradation to existing and cumulative LOS. Lastly, the Caltrans LOS threshold, which is the transition between LOS C and D, and is explained in detail in the *"Guide for the Preparation of Traffic Impact Studies"*, should be applied to all state facilities. Please note, Caltrans considers LOS by itself as an inadequate measure of effectiveness (MOE) for describing traffic operational conditions since it may actually mask a deficient condition on one or more approaches. As for intersection analysis the accepted MOEs used by Caltrans include flow (output), average control delay, queue (length or number of vehicles), and Volume/Capacity (V/C) ratio. For freeway and ramp operations, flow (output), speed, and travel time/delay are the accepted MOEs in addition to LOS.
5. Schematic illustration of traffic conditions including the project site and study area roadways, trip distribution percentages and volumes as well as intersection geometrics, i.e., lane configurations, for the scenarios described above.
6. Please provide a copy of the Traffic Management Control Plan.

Cultural Resources

The project environmental document must include documentation of a current archaeological record search from the Northwest Information Center of the California Historical Resources Information System if construction activities are proposed within state ROW. Current record searches must be no more than five years old. Caltrans requires the records search, and if warranted, a cultural resource study by a qualified, professional archaeologist, to ensure compliance with CEQA, Section 5024.5 of the California Public Resources Code and Volume 2 of the Caltrans Standard Environmental Reference (<http://ser.dot.ca.gov>). These requirements, including applicable mitigation, must be fulfilled before an encroachment permit can be issued for project-related work in state ROW; these requirements also apply to National Environmental Policy Act documents when there is a federal action on a project. Work subject to these requirements includes, but is not limited to: lane widening, channelization, auxiliary lanes, and/or modification of existing features such as slopes, drainage features, curbs, sidewalks and driveways within or adjacent to state ROW.

Encroachment Permit

Please be advised that work that encroaches onto the state ROW requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans, clearly indicating state ROW, must be submitted to: Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related mitigation measures will be incorporated into

the construction plans during the encroachment permit process. See the following website link for more information: <http://www.dot.ca.gov/hq/traffops/developserv/permits/>.

Please forward at least one hard copy and one CD of the environmental document, along with the TIS including Technical Appendices, and a complete plan set as soon as they are available.

Please feel free to call or email Sandra Finegan at (510) 622-1644 or sandra_finegan@dot.ca.gov with any questions regarding this letter.

Sincerely,



ERIK ALM, AICP
District Branch Chief
Local Development – Intergovernmental Review

CITIZENS FOR THE PRESERVATION OF SONOMA HISTORIC BRIDGES

**P. O. BOX 298
SONOMA, CA 95476**

RECEIVED

AUG 27 2012

**PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA**

August 22, 2012

Rich Stabler, Environmental Specialist
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

RE: Watmaugh Road Bridge (Bridge No. 20C-0017) Over Sonoma Creek Replacement Project
(PCAS #4126)
Environmental Issues of Concern To Be Addressed in the *Draft Environmental Impact Report*

Dear Mr. Stabler:

Thank you for the *Notice of Preparation of Draft Environmental Impact Report (DEIR)* and the amended Initial Study for the Watmaugh Road Bridge project over Sonoma Creek, south of the city of Sonoma.

It is our understanding based on the discussions, comments and action taken by the Board of Supervisors on July 31, 2012, awarding a contract - including the Scope of Service - to Moffatt & Nichol for an amount not to exceed \$500,009, that the *DEIR* will be prepared by Moffatt & Nichol. Based on responses provided by County staff at the Environmental Review Committee meeting held on August 7, 2012, regarding the Watmaugh Road Bridge project, it is our understanding that the Scope of Service, particularly as outlined in Section 2.3.5 CEQA and NEPA Documentation, will be amended, indicating that design and analysis of the alternative of retrofitting and rehabbing the historic Watmaugh Road Bridge will be provided in the *DEIR*. If our understanding is incorrect, please inform us in writing. Please e-mail a copy of the amended contract to jmpatri@aol.com, gailjohnson@vom.com, yvonnebowers@mac.com and nsimpson@comcast.net.

Please review past records in which Thomas F. O'Kane, Deputy Director Department of Transportation and Public Works, states that Cal Trans has approved a 30-foot wide bridge, yet the *Draft Initial Study* is for a 32-foot wide bridge.

Please provide written confirmation as to the County's designation of Watmaugh Road.

ISSUES TO BE ADDRESSED IN THE DRAFT ENVIRONMENTAL IMPACT REPORT

The following is a discussion of issues, together with their scope and content that should be addressed in the *DEIR*.

EIR Retrofit/Rehab Alternative Design Plans

As part of the environmental review process under CEQA, within the context of preparation of the *Draft Environmental Impact Report (DEIR)*, a reasonable range of alternatives, including retrofitting and rehabbing the existing historic bridge, must be included in the environmental evaluation. In order to sufficiently analyze the alternative retrofit/rehab project of the historic bridge, the *DEIR* must include 35% preliminary design plans – including the approaches on both ends - engineering analysis, field investigation and data gathering, and cost analysis. Design plans and engineering analysis for the retrofit/rehab of the existing historic bridge project must be in sufficient detail to be peer reviewed.

The *DEIR* must provide a discussion and analysis that Watmaugh Road is not designated as a bike path in the County's 2020 General Plan, and Watmaugh Road currently does not have adequate shoulders or bike lanes to accommodate bicyclists or pedestrians. Along with the design plans and cost analyzes to retrofit and rehab the historic bridge alternative, the *DEIR* should include preliminary design plans and cost analyzes for the construction of a cantilevered exterior pathway to accommodate bicyclists and pedestrians.

The *DEIR* must provide cost analyzes of the proposed replacement project and the alternative retrofit/rehab of the existing historic bridge project including a break-down of costs sufficient to be peer reviewed, including, but not necessarily limited to, structural and seismic work, decking, approach spans, truss work, floor beams and abutments, procurement of road right-of-ways, pier and foundation work, roadway improvements, utility relocations, and demolition.

Costs and Funding Sources

As stated above, the *DEIR* must specifically and accurately address the associated costs of the proposed bridge replacement project and the retrofit/rehab of the existing historic bridge project. The *DEIR* must provide verifiable cost analyzes. In his memo to the Sonoma County Landmarks Commission, dated February 2011, Thomas F. O'Kane, Deputy Director Department of Transportation & Public Works, states that "the initial estimate for replacing a structure was estimated to be in the range of \$5 million." The cost of a new bridge according to the "Final Retrofit Strategy Report" prepared by Imbren and Associates, dated May 7, 1997, (retained by Cal Trans) states on page 42, that the cost of a replacement bridge would be approximately seven (7) times greater than a retrofitted bridge.

The *DEIR* must include a specific discussion of availability of federal funds under the Federal Highway Bridge Program for bridge replacement and retrofit and rehab projects, including the County's request and received allocations for a replacement bridge, while concluding that there are no funds available for retrofitting and rehabbing. The *DEIR* must include a specific discussion on the availability of Proposition 1B Seismic Funds, Toll Credit Funding, as well as the County's local matching funds share for replacement or retrofit/rehab projects.

The *DEIR* must address amending the County's current application to secure federal funds under the Federal Highway Bridge Program for the retrofit/rehab of the historic bridge with a detailed cost effectiveness comparison.

The *DEIR* must address any physical changes of the proposed bridge replacement project, any alternative alignment replacement project and retrofit/rehab of the historic bridge alternative,

which can be traced through a chain of cause and effect to public social and/or economic impacts.

Transportation/Traffic

The *DEIR* must provide a full discussion addressing the County designation of Watmaugh Road and existing traffic conditions and address how the proposed replacement bridge will change traffic conditions, including, but not necessarily limited to, increased traffic capacity, increased truck traffic loads and increased speed of traffic.

The *DEIR* must include a current traffic study, prepared by an independent traffic consultant that includes current ADT and A.M. and P.M peak hours for vehicular traffic and bicycle and pedestrian traffic.

The *Draft Initial Study* states that Watmaugh Road "is designated in the Sonoma County GP 2020 as a major collector with average daily trips (ADT) for Watmaugh Road ranging from approximately 1,652 to 2,111; am and pm peaks range from 150 to 201 respectively." (page 3), while page 41 states "Watmaugh Road would continue to operate as a "Rural Minor Collector" as specified in the Sonoma County General Plan 2020 Circulation and Transit Element. The estimated total Average Daily Trips (ADTs) of 3,777 (County of Sonoma Traffic Volumes – January 2008 – December 2010) along Watmaugh are expected not to change as a result of the proposed project" (*underlining for emphasis*).

The *DEIR* must address the issue that if Watmaugh Road is designated as a Rural Minor Collector, why would it need to accommodate regional transportation needs, as noted in the Initial Study? The *DEIR* must address that a retrofitted/rehabbed historic bridge project, together with the existing road conditions, can sufficiently meet the local public transportation needs and will not conflict with, or impact, the level of service standards and travel demands of Watmaugh Road as a rural minor collector.

The *DEIR* must include a discussion of alternative routes used for regional traffic, including, but not necessarily limited to, vehicular traffic capacity, speed, and load limits, such as Leveroni Road and Petaluma Avenue, Riverside Drive and State Highway 12. The *DEIR* must address the width of the existing historic bridge to accommodate two 11-foot travel lanes and the use of Watmaugh Road and the retrofitted/rehabbed historic bridge as a safe alternative route for local traffic. The *DEIR* must address for safety purposes the reduction of the posted speed limit to further advance the safety of retrofitting/rehabbing the historic bridge with a posted speed limit of 15 mph across the bridge. —

The *DEIR* must address the lack of current use of Watmaugh Road by bicyclists and pedestrians and the lack of shoulders on Watmaugh Road. As stated earlier, the *DEIR* should address as an option to a replacement bridge project, the design and construction of a cantilevered exterior pathway to the retrofitted/rehabbed bridge to accommodate bicyclists and pedestrians.

Aesthetics

The *DEIR* must address how the proposed replacement project would be consistent with the established historic and rural character of the surrounding environment and Watmaugh Road as a rural, two-lane connector. Alternatively, the *DEIR* must address how the alternative retrofit/rehab of the historic bridge project would have no adverse environmental effect, but

would retain the established historic, rural and scenic character of the surrounding rural, agricultural, and historic environment.

The project site is designated as a Scenic Landscape Unit in the Sonoma County 2020 General Plan Open Space and Resource Conservation Element. The *DEIR* must address and analyze the effects of the proposed bridge replacement project versus the retrofit/rehab of the historic bridge project to the existing natural and rural environment and the scenic, visual and historic vistas at the project site and along Watmaugh Road. The *DEIR* must address the unique site sensitivity, the historic and engineering design authenticity, and the aesthetics of the proposed bridge replacement project versus the retrofit/rehab of the historic bridge project.

The *DEIR* must analyze the proposed replacement bridge project and the retrofit/rehab of the historic bridge project for impacts on the Historic District (HD) zoning and the Sonoma County Historic Bridges Thematic District as further discussed in Land Use, Planning, and Zoning section below.

Cultural and Historic Resources

The *DEIR* must address the historic significance of the Watmaugh Road bridge on a local, state, and national level.

The *DEIR* must address the adequacy of the evaluations done for Caltrans by independent consultants in 1986 and 2003, finding that the historic bridge "never qualified for National Registration", as stated in *County of Sonoma Agenda Item Summary Report*, prepared by Thomas F. O'Kane Jr., Sonoma County Department of Transportation and Public Works, dated July 31, 2012, and include as an attachment said evaluations.

The *DEIR* must address the evaluation of the Watmaugh Road bridge prepared by Tom Origer & Associates for the County of Sonoma, dated May 2012, which concludes that the Watmaugh Road historic bridge is eligible for listing on the California Register of Historical Resources under Criteria 1 and 3 and include as an attachment said study.

The *DEIR* must evaluate and address the eligibility of the historic Watmaugh Road bridge for inclusion on the National Register of Historic Places.

The *DEIR* must address the adverse impact the proposed bridge replacement project would have by destroying an historic resource associated with the historic fabric of Watmaugh Road and the surrounding environment and with the economic and transportation development of Sonoma Valley and the city of Sonoma.

Land Use, Planning and Zoning

In 1981 the Sonoma County Board of Supervisors (Board) re-zoned the Watmaugh Road bridge site by adding the Historic District (HD) combining district. In addition, the Board designated the Watmaugh Road bridge as Sonoma County Historic Site #103 (Board of Supervisors Resolution 69974). Furthermore, in 1998 the Board included the historic Watmaugh Road bridge within the established Sonoma County Historic Bridge Thematic District (Board of Supervisors Resolution 98-0046).

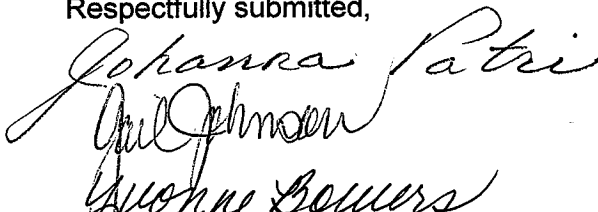
The HD zoning provides protection of designated landmarks. The *Draft Initial Study* states: "The HD Zoning District was established to protect those structures that serve as remainders of past

years, provide significant examples of architectural styles of the past or are unique and irreplaceable County assets." The *DEIR* must address the re-zoning that would be required with the demolition of the historic bridge in conjunction with the proposed bridge replacement project as part of the whole of the action and not as a separate action at a later date.

The *DEIR* must address the alteration in land use limitations associated with the demolition of the historic bridge as part of the proposed Watmaugh Road bridge replacement project. The *DEIR* must address how the proposed bridge replacement project, with the demolition of a County designated historic structure, potentially found eligible by the County for listing on the California Register of Historical Resources, conflicts with protection of the Watmaugh Road bridge historic resource as provided for in Board of Supervisors Resolutions 69974 and 98-0046. The *DEIR* must address the cumulative effect that destruction of one of the 12 designated County historic bridges within the Sonoma County Historic Bridges Thematic District would have on the Thematic District and the removal of other County historic bridges within the Thematic District selected by the County for demolition.

Thank you for this opportunity to provide input on those issues that we believe must be addressed in the *DEIR*.

Respectfully submitted,


Johanna Patri
Gail Johnson
Yvonne Bowers

Representing Citizens for the Preservation of Sonoma Historic Bridges

cc. Supervisor Valerie Brown
Supervisor David Rabbitt
Supervisor Shirlee Zane
Supervisor Mike McGuire
Supervisor Efren Carrillo
Sonoma Valley Advisory Committee
Sonoma City Council
Sonoma County Landmarks Commission
Sonoma League for Historic Preservation
Friends of Healdsburg Memorial Bridge
Sonoma County Department of Transportation and Public Works
Sonoma County Permit and Resource Management Department
Rose Zoia Attorney
Friends of Healdsburg Memorial Bridge
California State Office of Historic Preservation

Watmaugh Bridge DEIR Scoping

August 22, 2012

Mr. Rich Stabler
Environmental Specialist
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, California 95403

Dear Mr. Stabler:

As you can see from our address, we live in close proximity to the Watmaugh bridge that has been under discussion and currently moving forward toward new construction. We are very opposed to building a new bridge for many reasons. The number one would be an increase in traffic. You cite a 2008 report on traffic and I can guarantee that the traffic along Watmaugh Road has increased greatly.

Our second reason is that building a new wider bridge does not make it easier for bicyclists or anyone else as the rest of Watmaugh Road is without shoulders and very narrow with potholes, etc. We have had three accidents in front of our house due to the narrow road and drivers running off the road. I do not know of any accident on the bridge except a motorcycle some 30 years ago and that was due to speed.

In your study you mention on page 4 about Figure 1 and Figure 2. I fail to find them anywhere. Also the location map was literally a joke.....what will the 32 foot wide bridge look like? How does it conform to the location? How silly is it to stick some 83 year old trusses on top of a new bridge? Will you be sandblasting and painting them? Will you store them somewhere while building the new bridge? I imagine they will rust out and be useless within 2 years and require removing.

Hopefully you will be able to answer these questions and provide the items we didn't receive. It will certainly be an inconvenience for us during the construction and we are not looking forward to turning Watmaugh Road into Leveroni Road and the next thing will be a stop light at Broadway.

Sincerely,

Ron & Marilyn Kiser

Ron and Marilyn Kiser
755 W. Watmaugh Road
Sonoma, CA 95476

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AUG 27 2012

**PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA**

Summary Action of the
Environmental Review Committee

August 7, 2012

Item No. 1 **Time:** 9:00 A.M. **File:** N/A
Applicant: Department of Transportation and Public Works
Staff: Rich Stabler
Env. Doc.: To Be Determined
Proposal: The DTPW proposes to replace the existing Landmarks status Warren pony truss bridge at Watmaugh Road over Sonoma Creek with a 33-ft wide concrete box girder bridge. DTPW proposes to preserve the existing structural steel trusses and include it as a detail on the new structure.
Location: Watmaugh Road over Sonoma Creek, Sonoma
APN: N/A **Sup. Dist:** First
Zoning: HD (Historic District)

Action: The Environmental Review Committee reviewed the subject application and makes the following determination:

A Focused Environmental Impact Report is required.

Notes:

A Focused EIR on the following issues is appropriate: Cultural/Historical Resources, Visual Resources/ Aesthetics, and Land Use/ Planning.

The following two project alternatives shall be analyzed in the Focused EIR:

1. A. Preserve the existing bridge.
 B. Construct a nearly, stand alone bicycle and pedestrian bridge.
2. A. Preserve the nearby bridge, operate it as a one-way bridge.
 B. Construct a second bridge with a bicycle lane, operate it as a one-way bridge.

Adam McKannay: Absent	Gail Davis: Aye	Mitch Simson: Aye
Lisa Posternak: Aye	Jon Tracy: Aye	Reg Cullen: Aye
Ayes: 4	Noes: 0	Absent: 1
		Abstain: 0

ERC ACTION TAKEN ON AUGUST 7, 2012: Reg Cullen moved to recommend a Focused EIR, Seconded by Lisa Posternak and passed with a 4-0-1 vote.

APPENDIX D INITIAL STUDY

DRAFT INITIAL STUDY

PREPARED FOR
SONOMA COUNTY
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS

WATMAUGH ROAD BRIDGE OVER SONOMA CREEK REPLACEMENT PROJECT

August, 2012

Sonoma County Permit and Resource Management Department
Environmental Review Division
2550 Ventura Avenue
Santa Rosa, California 95403





Draft Initial Study

Sonoma County Permit and Resource Management Department
2550 Ventura Avenue, Santa Rosa, CA 95403
(707) 565-1900 FAX (707) 565-1103

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code 21000 *et seq* and the *State CEQA Guidelines*, California Code of Regulations Section 15000 *et seq*. The project assessed in this Initial Study consists of the proposal by the Sonoma County Department of Transportation and Public Works to replace the Watmaugh Road Bridge over Sonoma Creek. The County of Sonoma, as Lead Agency, has determined that an Environmental Impact Report (EIR) will be prepared for this proposed project. This Initial Study has two aims. First, it will identify which environmental resources would 1) not be affected by the project, or 2) be affected at a less than significant level. Supporting data will be provided to demonstrate how a conclusion of "no impact" or "less than significant impact" is reached. Second, the Initial Study will identify the remaining resources that the project may significantly impact. These are the resources and areas of impact that will be addressed in the EIR. Thus, the Initial Study "focuses" the analyses that will be included in the EIR.

Project Title: Watmaugh Road Bridge (Bridge No. 20C-0017) Over Sonoma Creek Replacement Project (PCAS # 4126)

Project Location Address: Watmaugh Road at Sonoma Creek, Sonoma County

Lead Agency: Sonoma County

Decision Making Body: County of Sonoma Board of Supervisors

Project Applicant: Sonoma County Department of Transportation and Public Works

Introduction

The Sonoma County Department of Transportation and Public Works (DTPW) propose to replace the existing Watmaugh Road Bridge over Sonoma Creek southwest of the City of Sonoma. The existing bridge was originally constructed in 1929 and is designated locally as a County Landmark.

This Initial Study was prepared to guide the County to prepare either a mitigated negative declaration, or environmental impact report and to focus the preparation of an EIR if significant Impacts are found. This document was prepared by Rich Stabler, Environmental Specialist with the Sonoma County Permit and Resource Management Department, with engineering information provided by Levi Gurule of the Department of Transportation and Public Works.

Purpose and Need for Proposed Project

The purpose of the project is to provide a road crossing over Sonoma Creek that meets modern design standards and accommodates local and regional transportation needs. The existing pony truss bridge was constructed in 1929 and is approaching the end of its service life. Due to the age of the bridge, and channel changes since original bridge construction, the existing structure has the following deficiencies:

- The truss bridge is considered fracture critical and could collapse without warning.
- Exhibits signs of structural deficiencies as a result of rust in several of the joints.
- The approach spans are failing due to age and wear.
- The bridge pier foundations have been found to be “scour critical” by Caltrans inspectors and are currently undermined from significant scour.
- Does not meet modern seismic standards and could be subject to collapse during an earthquake.
- Lacks standard shoulder width, and cannot accommodate large loads due to lane width and structural limitations for weight loading (the existing bridge is too narrow to accommodate the curvature in the existing road alignment, resulting in frequent collisions with guard railing).
- The bridge is currently load limited due to structural deficiencies.
- The road alignment and bridge do not provide adequate site distance viewing, as the bridge is on a curve of the roadway.

Project Objectives:

- Eliminate structural deficiencies and increase load limits.
- Incorporate modern seismic standards.
- Provide standard shoulder width that would accommodate large loads and minimize frequent collisions with guard railing.
- Provide improved road alignments and site distance.
- Eliminate the risk crack induced failure of non-redundant structural components of the bridge that could result in failure (also called “fracture critical” condition).

Background

California has a statewide program to replace or retrofit bridges to comply with seismic safety standards. In the fall of 1998, Sonoma County staff presented a project to the Landmarks Commission to seismically retrofit the existing bridge. Recently County staff has presented a project to remove and replace the bridge as an informational item to the County’s Landmarks Commission during three of their regularly scheduled meetings, specifically in the fall of 2010 and winter of 2011 (September 7, 2010, October 5, 2010, and February 1, 2011). Also, recently, on June 7, 2011, staff brought an informational item that proposed a bypass bridge just downstream from the existing 1929 bridge. The plan presented at each of these meetings was met with strong opposition from the local public and members of the Commission. As a result of these meetings, the DTPW has redesigned the project to include saving the existing trusses and attaching them to the new bridge structure. This concept, along with preserving the existing alignment, may reduce impacts to the existing Landmark status bridge, and would still meet the public transportation needs along Watmaugh Road (i.e., the principal objective of the proposed project).

Setting and Existing Facility

The project site is designated as a Scenic Landscape Unit in the Sonoma County 2020 General Plan Open Space and Resource Conservation Element. The Sonoma County Official Zoning Database, places the bridge into two combining districts: the bridge in the Historic District (HD) and Sonoma Creek in the F2 Floodplain. Zoning Districts adjacent to the project site include Biotic Resources (BR), Valley Oak Habitat (VOH) and Scenic Resource (SR) combining districts. The VOH extends along Watmaugh Road as far east as Highway 12; dense riparian habitat borders the banks of the creek near the project site. The SR extends along Watmaugh Road as far west as Arnold Drive.

Watmaugh Road is designated in the Sonoma County GP 2020 as a major collector with average daily trips (ADT) for Watmaugh Road ranging from approximately 1652 to 2111; am and pm peaks range from 150 to 201 respectively. (County of Sonoma Traffic Volumes, January 2008)

through December 2010).

The existing pony truss bridge was constructed in 1929 and was designated as a County Landmark in 1981. The bridge is approaching the end of its service life and has many structural deficiencies that plague the existing structure, including load limitations, poor sight distance, lack of shoulders, the lack of seismic upgrades, and scour /undermining issues at the foundations. The current bridge has two concrete piers that lack underlying piles. They are both located within the channel, with the easterly pier located upslope while the westerly pier is located in active the low-flow channel and as a result, receives a great deal of annual scour and has become undermined. The creek channel within the vicinity of the project consists of a series of runs, glides, and riffles that are punctuated by a small (approximate 10-ft x 15-ft) side pool that has formed due to excessive scour near the westerly pier.

The FEMA Flood Profile for Sonoma Creek shows the existing bridge deck at about elevation 49, the bottom of the existing bridge at elevation 47 and the 100 year storm water surface in the creek at elevation 45. The west side of the creek at the bridge is dominated by Rock Slope Protection (RSP.) The average flow velocity of Sonoma Creek at Watmaugh Road Bridge is 2 cubic meters (6.5 ft.) per second.

Project Description

The proposed bridge project would be located on Watmaugh Road where it crosses Sonoma Creek (Figure 1). The project would construct a replacement bridge within the approximate alignment of the existing bridge (Figure 2). The new bridge would be a two span pre-stressed concrete box girder that would be approximately 185 feet in length (Figure 3). The new bridge would be 32 feet wide, consisting of two 11-foot travel lanes and two 5-foot shoulders. The approach roadway width would also be widened to about 32 feet and taper until it conforms to the existing roadway at each end of the bridge.

To construct the new bridge, Cast in Drilled Hole (CIDH) concrete piers would be drilled into the banks of the creek at the location of the abutments and at the center pier, with the number and size of the CIDH piers to be determined prior to construction, based upon the results of a geotechnical report. Additional rock slope protection (RSP) may be included with the proposed bridge replacement. Prior to removal of the existing bridge, a debris catching platform would be constructed under the bridge. The platform would be supported by the existing structure over the water and would function to prevent concrete debris from falling into the creek during removal of the existing bridge deck.

The project would be constructed within one spring-summer construction season, except tree removal may be conducted during the previous fall and winter to avoid the migratory bird nesting season.

The existing bridge would be closed to traffic during construction. Alternate routes are available within the vicinity of Watmaugh Road to both the north and south, via Leveroni Road and State Highway 12/121. The maximum detour length would be approximately 5 miles.

Only minor amounts of additional right-of-way would be required to construct the project and temporary construction easements may be necessary. Relocation of existing utilities may also be needed.

Construction Methods

Access for construction vehicles to the channel bottom will likely be required to remove the existing piers, to build the new piers, and to construct the falsework for the new bridge. Access would likely be from the southeast side of the bridge and may require grading a road from the top of the bank down to the channel bottom. Some pruning of willows and other riparian species will be required for preparation of the access road; however, cutting will be kept to a minimum. Some

trees will likely need to be cut and removed including California buckeye trees, black walnuts, and other trees on the path of the proposed access road. These trees will only be removed if absolutely necessary to construct the road. Willows and other plants that re-sprout will be cut at grade only if necessary, with no roots removed from the ground. The access road will be kept as narrow as possible to minimize disturbance to the banks and the riparian community that it supports. The access road would not need to be wider than 15-ft, (the approximate width of a large backhoe or excavator). To prevent soil, moved from the creation of the access road, from entering the creek; a fabric material may be laid down and angular gravel temporarily placed over it. This will provide the necessary traction for the construction vehicles, while separating the soil from the gravel. In order to isolate the work area during construction, the creek will be temporarily diverted into culverts. This will be done by digging a shallow trench, and placing the culvert into the trench. Upstream and downstream diversion dams will be constructed by pushing imported clean river run gravel into place such that it will not trap fish. To trap larger particles suspended in the water column, filter fabric will be placed on the face of the downstream diversion dam. Immediately following the completion of the diversion system, all fish trapped in the dewatered part of the stream will be collected by a qualified and permitted individual and moved downstream of the work area. Following fish capture and relocation, gravel will be placed over the culverts between the two diversion dams to create a flat work surface. The total approximate length of the diversion will be about 120 ft.

The rock slope protection that exists at Pier 2 will be replaced after construction is completed and additional RSP may be placed, if necessary, to protect it from erosion. At the diversion, culverts will be removed and notches will be dug in the upstream and downstream diversion dams to allow the creek flow to return to its approximate previous channel. In order to prevent the material from the sediment stilling basin from entering the river, during future high water flows, following construction, all of the sediment in the sediment stilling basin will be removed and disposed of outside the river channel in a permitted manner. Following sediment removal the basin will be re-graded with the stockpiled excavated gravel to match the surrounding topography.

Following construction, the access down the bank, and other disturbed areas, will be re-graded to match existing topography. The gravel used to create the access road will be removed along with the fabric and the soil will be used to re-grade the access road to approximate preexisting topography. Replanting with native species will be done if plants cut at grade do not re-sprout. Appropriate erosion control methods will be implemented on the bank graded for the access road.

Issues Raised By the Public or Agencies

Caltrans:

On June 23, 1999, Caltrans provided comments on the Historic Property Survey Report, Appendix A: Archaeological Survey Report, Appendix B: Bridge Evaluation Report, Appendix C: Historic Architectural Survey Report and Appendix D: Photographs for the Watmaugh Road Bridge at Sonoma Creek Seismic Retrofit Project. The issues raised in these comments address a variety of concerns including the adequacy of the historic survey of the Watmaugh Bridge.

Caltrans:

In September, 2004, Caltrans published the "Caltrans Historic Bridges Inventory Update: Metal Truss, Movable, and Steel Arch Bridges." Caltrans collaborated with the Federal Highway Administration and the California Office of Historic Preservation to "re-examine" the historical significance of 262 bridges in California and determine their eligibility for listing in the National Register. Watmaugh Road Bridge (Bridge # 20C0017) was found not to be eligible for listing in the National Register. (See Table 7) Based on Caltrans' Criterion A numerical scoring system, "this bridge replaced a previous structure and does not appear to have fostered additional development in the area. This structure also does not appear to be associated with any significant events or nearby historic properties. Overall, this bridge does not appear to be a

significant example within the context of local transportation improvement.

Caltrans:

On July 20, 2009, Caltrans prepared a routine Bridge Inspection Report on Watmaugh Bridge. The report found the bridge to be in various states of deterioration with a need for some repair and maintenance. Retention of the existing weight limit sign was recommended.

Sonoma County Landmarks Commission - September 7, 2010:

The following commentors raised a variety of issues including condition of the existing bridge, retro fit of existing bridge, cost of retro fit compared to replacement construction, structural components of existing bridge, Cal Trans requirements, historic significance of existing bridge, use of old trusses on new bridge, Proposition 1B Local Bridge Seismic Retro Account (LBSRA).

Bishwendu K. Paul, Satinder P. Singh, Gail Johnson, Johanna Patri, Jim Smith, Jim Bundschu, Robert Garrant, Yvonne Bowers

Sonoma County Landmarks Commission – October 5, 2010:

The following commentors raised a variety of issues including use of funds to retro fit existing bridge, scour of bridge footings, and Caltrans bridge rating.

Gail Johnson, Robert Garrant, Johanna Patri, Satinder P. Singh, Ken Niles

Sonoma County Landmarks Commission – February 1, 2011:

The following commentors raised a variety of issues including scour of the bridge footings, 400 year flood, bridge needs to be saved, and work required on approaches to make them safer.

Robert Garrant, Jim Smith, Ken Niles, Gail Johnson, Yvonne Bowers

Sonoma County Landmarks Commission – June 7, 2011:

The following commentors raised a variety of issues including eminent domain, road alignment, rural character, design options, tree removal, speed of traffic, and National Register eligibility:

Ken Niles, Dusty Niles, Betsy Niles, Dan Peterson, Johanna Patri, Gail Johnson, Yvonne Bowers

Sonoma County Landmarks Commission –July 24, 2012:

The following commentors raised a variety of issues including eminent domain, road alignment, rural character, design options, tree removal, speed of traffic, and National Register eligibility.

Dusty Niles, Johanna Patri, Gail Johnson, Yvonne Bowers among others. During this meeting, the Sonoma County Landmarks Commission reviewed an Initial Study, a set of alternatives and other materials that were prepared per the required procedures for the proposed bridge replacement project. The conclusion made by the Commission was that they recommend denial of the proposed bridge replacement project in part because the loss of the bridge would conflict with the HD zoning.

Permits and Approvals

It is anticipated that permits would be obtained from the following resource agencies:

1. The U. S. Army Corps of Engineers (ACOE) will require a Nationwide Permit/or Individual Permit under Section 404 of the Clean Water Act for fill below the ordinary high water

mark in Sonoma Creek.

2. The Regional Water Quality Control Board (RWQCB) will require either a Section 401 Water Quality Certification, Waiver of Waste Discharge Requirements for dredge and fill material within Sonoma Creek.
3. The California Department of Fish and Game (CDFG) is a Trustee Agency under CEQA and will also require a Lake and Streambed Alteration Agreement under Section 1601 of the California Fish and Game Code.
4. The U. S. Fish and Wildlife Service (FWS) may draft a Biological Opinion and an Incidental Take Permit for listed species to satisfy the Federal Endangered Species Act for California freshwater shrimp.
5. The NOAA Fisheries (NMFS) may draft a Biological Opinion and an Incidental Take Permit for listed fish species listed under the Federal Endangered Species Act.
6. The Sonoma County Permit and Resource Management Department (PRMD) may require a 3836R Streambed Roiling Permit for impacts to Sonoma Creek.
7. State Office of Historic Preservation - Consultation regarding National Register Eligibility, Finding of Effects, and mitigation of adverse effects.

Impacts and Mitigation Measures: The potential impacts and corresponding mitigation measures for the proposed project are summarized in the attached Preliminary Draft Initial Study checklist. A broader discussion of the impacts and mitigation measures will be considered in the Draft CEQA Initial Study that will be presented to the Environmental Review Committee (ERC).

Environmental Finding: The attached Initial Study prepared by the Permit and Resource Management Department (PRMD) Environmental Review Division found that the proposed project may result in potentially significant impacts on the environment. The Environmental Review Committee (ERC) will take these findings under consideration before rendering an environmental determination pursuant to CEQA.

Initial Study Checklist

This checklist is taken from Appendix G of the State CEQA Guidelines. For each item, one of four responses is given:

No Impact: The project would not have the impact described. The project may have a beneficial effect, but there is no potential for the project to create or add increment to the impact described.

Less Than Significant Impact: The project would have the impact described, but the impact would not be significant. Mitigation is not required, although the project applicant may choose to modify the project to avoid the impacts.

Potentially Significant Unless Mitigated: The project would have the impact described, and the impact could be significant. One or more mitigation measures have been identified that will reduce the impact to a less than significant level.

Potentially Significant Impact: The project would have the impact described, and the impact could be significant. The impact cannot be reduced to less than significant by incorporating mitigation measures. An environmental impact report must be prepared for this project.

Each question on the checklist was answered by evaluating the project as proposed, that is, without considering the effect of any added mitigation measures. The checklist includes a discussion of the impacts and mitigation measures that have been identified. Sources used in this Initial Study are numbered and listed on pages 42-43. Following the discussion of each checklist item one or more sources used are noted in parentheses.

In the event that a Mitigated Negative Declaration is required by ERC for the proposed project, DTPW has agreed to accept all mitigation measures listed in this checklist as conditions of approval of the proposed project and to obtain all necessary permits. If an Environmental Impact Report (EIR) is recommended by the ERC, this Initial Study will aid in scoping the environmental analysis, impacts, and mitigation measures identified further in the Draft and Final EIR.

For more information please contact **Rich Stabler, Environmental Specialist, at 565-8352.**

1. AESTHETICS. *Would the project:*

a) Have a substantial adverse effect on a scenic vista?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
	X			
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DISCUSSION: Evaluating the proposed project's potential adverse effects on scenic vistas involves describing the existing setting, the project's description, and the policies and regulations that affect the project area.

2.2 Policy For Scenic Landscape Units - As the County urbanizes, maintenance of the openness of these areas provides important visual relief from urban densities. These landscapes have little capacity to absorb very much development without significant visual impact. Major Scenic Landscape Units include the area where the proposed project is located in Sonoma Valley.

Sonoma Valley - Included in this area are the Sonoma-Napa Mountains that provide a backdrop to the valley and agricultural areas bordering the valley. These areas define the boundaries of the urban and rural communities and are very sensitive because of their small size and the unobstructed view of them from roads and adjoining urban areas.

- Policy OSRC-2d (5) - Design structures to use building materials and color schemes that blend with the natural landscape and vegetation.

SONOMA COUNTY OFFICIAL ZONING DATABASE:

The Sonoma County Official Zoning Database, including progressive amendments that as of May 10, 2011, placed the bridge into two combining districts: the bridge in the Historic District (HD) and Sonoma Creek in the F2 Floodplain. Zoning Districts adjacent to the project site include Biotic Resources (BR), Valley Oak Habitat (VOH) and Scenic Resource (SR) combining districts. The VOH extends along Watmaugh Road as far east as Highway 12; dense riparian habitat borders the banks of the creek near the project site however no valley oaks would be effected by the proposed project. The SR extends along Watmaugh Road as far west as Arnold Drive. The purpose of the SR is to preserve the visual character and scenic resources of lands in the county.

PRMD VISUAL ASSESSMENT GUIDELINES - The PRMD Visual Assessment (VA) Guidelines have been applied to the visual characteristics of the proposed bridge replacement. While the analysis of visual impacts involves qualitative judgments, this procedure is intended to define a methodology that utilizes, to the extent practicable, objective standards that can be described and utilized in a consistent manner.

Project impacts have been analyzed by considering public viewing points. Public viewing points include public roads, public trails, and public parks. Viewing points from private properties are not used when applying the VA Guidelines.

Characterize the Site's Sensitivity - The visual sensitivity of the project site may be given a rating of low, moderate, high or maximum using the criteria specified in the VA Guidelines. The visual dominance of the project is determined comparing the contrast of the VA Guideline's elements, or characteristics, of the project with its surroundings and giving a rating of in evident, subordinate, co-dominant, or dominant.

Site Sensitivity - Based on the criterion specified in the VA Guidelines, the visual sensitivity of the proposed project site is *high*. Sites designated as "high" in sensitivity are locations within a land

use or zoning designation protecting scenic or natural resources, such as General Plan designated scenic landscape units, coastal zone, community separators, or scenic corridors. The site vicinity is generally characterized by the natural setting and forms a scenic backdrop for the community or scenic corridor. This category includes building and construction areas within the SR designation located on prominent hilltops, visible slopes less than 40 percent or where there are significant natural features of aesthetic value that are visible from public roads or public use areas (i.e. parks, trails etc.). This category also includes building or construction sites on prominent ridgelines that may not be designated as scenic resources but are visible from a designated scenic corridor.

Determine Visual Dominance - The visual dominance of the project is determined comparing the contrast of the following elements or characteristics of the project with its surroundings and giving a rating of inevent, subordinate, co-dominant, or dominant:

- Form: shape, geometry, complexity.
- Line: the edge of the shape, boldness, complexity of silhouette, orientation.
- Color: reflectivity, hue (actual color), value (dark or light)
- Texture: surface characteristics, randomness, grain (fine or coarse)
- Night Lighting

Visual Dominance - Based on the criterion specified in the VA Guidelines, the visual dominance of the proposed project is *co-dominant*. Project elements are moderate – they can be prominent within the setting, but attract attention equally with other landscape features. Form, line, color, texture, and night lighting are compatible with their surroundings.

Determining Significance of Visual Impacts - The visual sensitivity of the site is *high*. The visual dominance of the project in terms of its form, line, color, texture, and lighting is *co-dominant*.

The significance of the visual impact by comparing site sensitivity with visual dominance of the project may be significant even after the incorporation of the following mitigation measures:

Aesthetics Impact No. 1: The proposed bridge replacement would require the removal of existing mature trees that would likely impact existing scenic vistas.

Aesthetics Mitigation Measure No. 1: *The proposed tree replacement shall include native oaks, California bay, and other native species planted, irrigated and maintained within the public ROW along Watmaugh Road and Sonoma Creek that are compatible with existing riparian setting.*

Aesthetics Impact No. 2: The replacement of the existing bridge with new materials could adversely impact the visual quality of the surrounding rural community.

Aesthetics Mitigation Measure No. 2: *The proposed replacement bridge design shall include the truss elements found on the existing bridge on both sides of the proposed bridge. In addition, existing guard rails, soffits, and other visually prominent elements of the existing bridge shall be incorporated into the proposed bridge to the degree feasible without compromising the structural integrity of project. Where utilizing existing bridge components would not be practical, new materials shall be treated to blend with reused bridge elements and the surrounding rural community.*

Significance of Impact with Incorporation of Mitigation Measure: **potentially significant.**

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b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Watmaugh Road bridge is not a designated a state scenic highway. The existing bridge and the approaches to the bridge have no heritage trees, unique geological features or historic buildings with a state scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

See discussion 1(a) and (b).

d) Create a new source of substantial light or glare which would adversely affect day or nighttime view in the area?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

No new lighting is proposed for the replacement bridge. Therefore, there will be no impact caused by substantial light or glare from the proposed project.

2. AGRICULTURE AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

DISCUSSION: Although the proposed replacement bridge would be wider than the existing bridge, the new bridge would be located within existing public rights-of-way. Therefore, no farmland policies or farmland regulations apply to the proposed project and no impact to prime farmland, unique farmland or farmland of statewide importance is anticipated from the proposed

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project.

b) Conflict with existing zoning for agricultural use, or Williamson Act Contract?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

See discussion 2 (a).

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)), timberland (as defined by Public Resource Code 4526) or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

DISCUSSION: No Timber Production (TP) combining zoning district applies to any of the property proposed as part of the project site. Therefore, no conflict with existing zoning for forest land is anticipated with the implementation of the proposed project.

d) Result in the loss of forest land or conversion of forest land to non-forest use?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

See discussion 2 (c).

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion to Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

See discussion 2 (a).

2. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

DISCUSSION: The project is within the jurisdiction of the Bay Area Air Quality Management District. The District does not meet the Federal or State standards for ozone, and has adopted an ozone Attainment Plan and a Clean Air Plan in compliance with Federal and State Clean Air Acts.

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These plans include measures to achieve compliance with both ozone standards. The plans deal primarily with emissions of ozone precursors (nitrogen oxides and volatile organic compounds). The project will not conflict with the District's air quality plan because the proposed use will not emit significant quantities of ozone precursors or involve construction of transportation facilities that are not addressed in the adopted transportation plan.

The proposed bridge replacement would not add additional travel lanes and would operate at, or less than, the current criteria pollutant emission levels associated with the existing Watmaugh bridge. Therefore, no impact to air quality plans is anticipated from the proposed project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				X

State and Federal standards have been established for the "criteria pollutants": ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide and particulates (PM₁₀ and PM_{2.5}).

No existing or projected air quality violations have been identified in the area. Because the project will not cause significant long-term emissions of criteria pollutants, the project will not violate any air quality standard. Therefore, no impact to air quality standards is anticipated from the proposed bridge replacement project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)		X		

DISCUSSION: The Bay Area is a non-attainment area for ozone and PM₁₀ (fine particulate matter). The project would not have a cumulative effect on ozone because it would not generate traffic which would result in new emissions of ozone precursors (hydrocarbons and NO_x). The project would have no long-term effect on PM₁₀, because all surfaces would be paved or landscaped, and dust generation would be insignificant. However, there could be a significant short-term emission of dust (which would include PM₁₀) during construction. These emissions could be potentially significant at the project level, and would also contribute to a cumulative impact.

The impact could be reduced to less than significant by including dust control measures as described in the following mitigation measure:

Air Quality Impact No. 1: The proposed project could generate PM₁₀ for short periods of time during the temporary construction phase of the proposed project.

Air Quality Mitigation Measure No. 1:

(a) Water or dust palliative shall be sprayed on unpaved construction and staging areas during construction as directed by the County.

(b) Trucks hauling soil, sand and other loose materials over public roads shall cover

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the loads, or shall keep the loads at least two feet below the level of the sides of the container, or shall wet the load sufficiently to prevent dust emissions.

(c) Paved roads shall be swept as needed to remove soil that has been carried onto them from the project site.

(d) Water or other dust palliative shall be applied to stockpiles of soil as needed to control dust.

Significance After Incorporation of Mitigation Measure: Less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		
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DISCUSSION: There will be no long term increase in emissions, but during construction there could be dust emissions that would affect nearby residents. Dust emissions can be reduced to less than significant by the mitigation measure described in item 3c above.

e) Create objectionable odors affecting a substantial number of people?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
			X	
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Construction equipment may generate odors during project construction. The impact would be less than significant and it would be a short-term impact that ceases upon completion of the project.

4. BIOLOGICAL RESOURCES: *Would the project:*

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		
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DISCUSSION: Within the vicinity of the proposed project, Sonoma Creek is known to provide habitat for federally listed threatened, Central California Coastal Steelhead. The Watmaugh Road Bridge area of Sonoma Creek provides high quality spawning habitat, nursery habitat as well as a migration corridor for this species. In addition, within the vicinity of the proposed project, county staff has conducted surveys for California Freshwater Shrimp, (CFWS), which is a state and federally listed endangered species. The goals of the surveys included 1) establishing presence or absence of CFWS in the area 2) assess habitat quality and 3) assess the types of habitat within the area of the project. CFWS were observed in the creek and habitat features such as underwater root masses and bank overhangs were also observed in the study area that could be affected by the proposed project. The bridge structure itself shows signs of providing night roosting habitat for bats, several of which are Species of Special Concern. While this the case, the bridge only appears to provide night roosting habitat and the temporary loss of the bridge would not be considered a significant impact to sensitive bat species. The western pond turtle, (WPT) also a California Species of Special Concern, are also found on Sonoma Creek. Though western pond turtles have not been observed on site, the upper banks of Sonoma Creek could potentially be used for a temporary upland refugium. The creek channel could also be used as a migratory corridor. Work is limited to the upper banks of the creek. Fencing along the work limits will prevent direct impacts to turtles that could be using the lower banks or creek channel as a migratory corridor. A preconstruction survey will be conducted for western pond turtle (see the below mitigation).

As discussed previously in the Construction Methods Section, in order to construct the new bridge, work within the creek may include the placement of a temporary gravel workpad under the existing bridge. The placement of the workpad would require that water within the low-flow channel going through the worksite be captured and conveyed in a pipe via installation of gravel dams. In addition, temporary access roads within the creek banks will be required. All of these activities may potentially have a significant impact on steelhead, WPT and CFWS and their habitats.

Biological Resource Impact No. 1: Replacement of the Watmaugh Road Bridge could potentially impact steelhead and CFWS and their habitats.

Biological Resource Mitigation Measure No. 1:

- ***Construction dates for work in the flowing water are June 15 to October 15. Work outside the flowing water can occur May 15th until October 15.***
- ***The County shall require that a qualified and permitted individual remove any fishes, turtles and other significant aquatic species from Sonoma Creek in the project area immediately prior to installation of the work pad and again from the confined pool created during work pad construction. The aquatic species removed from the project area are to be released at an available location, with similar habitat, outside of the work area.***
- ***Access for work under the bridge will be from the southeast quadrant. This will require grading a road down to the channel bottom, avoiding as much as possible the trees on the bank.***
- ***Only the minimum amount of vegetation will be pruned or removed that is necessary to construct the project. All trees and shrubs that must be removed will be cut at or just below grade to facilitate plant regrowth.***
- ***The diversion dams will be constructed with imported clean river-run material, with a filter fabric placed on the face of the downstream diversion dam. Gravel placed in the creek for any reason will be the minimum necessary.***

- *The culverts used for the work pad will be sized in such a manner as to not significantly back-up water upstream or significantly increase the velocity of the water at the outlet. Culvert capacity will be designed to sufficiently maintain the preexisting creek velocity or 1.3 feet per second, whichever is greater, during expected normal flow.*
- *A sediment stilling basin will be constructed upstream from the bridge if necessary to dewater the work area at pier 2. No pruning or vegetation removal will be allowed during excavation for the sediment stilling basin. The excavated material will be stockpiled for later filling in of the basin following project completion. If a sediment stilling basin is not used, all water collected from the CIDH drilling operations will be pumped upslope out of the channel and either stored in tanks to be hauled off site, or disposed on land in such a manner that the water will not flow back into Sonoma Creek.*
- *The County will require the contractor to use a drilling mud and slurry seal that is non-toxic to aquatic life. If it is determined that a non-toxic material for either of these applications is not feasible for this project, then all drilling muds and fluid within all drilled holes will be contained on site in tanks, removed from the project area, and disposed of in a permitted manner.*
- *Following construction, all of the sediment accumulated in the stilling basin will be removed and disposed of in a permitted manner.*
- *The County will not allow any motorized equipment to be left within the Porter Creek Channel (top of bank to top of bank) overnight, unless a container or similar method is securely in-place beneath the equipment to capture any fluid leakage. All contained fluids will be disposed of in a permitted manner.*
- *Following construction, the sediment stilling basin will be filled with previously excavated material and re-graded to match existing topography. The access road down the bank will be re-graded to match pre-project topography, with erosion control measures applied to the slope. All other disturbed areas will be regraded to match existing topography. Appropriate erosion control measures will be used on all disturbed areas to minimize the potential for erosion, these may include hydro seeding, erosion control blankets, or other appropriate BMP's based upon the conditions of the site.*
- *All excavated materials will be removed from the creek channel and disposed of in a permitted manner.*
- *There will not be any motorized equipment left overnight within the Sonoma Creek channel, top of bank to top of bank.*
- *No equipment, including concrete trucks, will be washed in the creek or in a place where wash water could drain into the creek.*
- *Water that comes into contact with wet concrete and has a pH greater than 9.0 must be pumped to a truck or by hose for upland disposal or treatment (not within the banks of any waterway).*
- *All equipment refueling and maintenance will occur outside the creek channel (bank to bank). In order to minimize the potential for spills and leaks of fluids from all other equipment working within the creek channel, an Accidental Spill*

Prevention and Cleanup Plan will be prepared. This plan will include requiring spill control absorbent material to be present on site and available at all times.

- ***There shall be no equipment operated within the flowing water of Sonoma Creek.***
- ***Following project construction, all equipment and materials will be removed from the creek.***

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b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

DISCUSSION: Sonoma Creek is a designated “flatland” riparian corridor in the Sonoma County General Plan with a 100’ streamside conservation area on both sides of the creek. Removal of vegetation must comply with General Plan Policy OSRC-8e (see below). The project will require the removal of riparian vegetation for the existing bridge and construction of the new bridge.

The mitigation measures below are designed to ensure project consistency with Sonoma County General Plan policies for designated riparian corridors. Since the General Plan defines riparian corridors as areas along streams with native vegetation, the non-native acacia trees will be excluded from protective or compensatory mitigation measures.

Some tree pruning and/or removal would be required to facilitate equipment access on top of the bank and to accommodate the footprint of the new wider bridge. The project would be constructed within one spring-summer construction season, except that tree removal may be conducted during the previous fall to avoid the migratory bird nesting season.

Policies and Regulations - COUNTY’S 2020 GENERAL PLAN – OPEN SPACE AND RESOURCE CONSERVATION ELEMENT – BIOLOGICAL RESOURCES

- Policy OSRC-8e: Prohibit, except as otherwise allowed by Policy OSRC-8d, grading, vegetation removal, agricultural cultivation, structures, roads, utility lines, and parking lots within any streamside conservation area. Consider an exception to this prohibition if: (2) The use involves the minor expansion of an existing structure where it is demonstrated that the expansion will be accomplished with minimum damage to riparian functions.

Biology Resource Impact No. 2: Tree removal may impact riparian habitat along Sonoma Creek.

- ***Biology Mitigation Measure No. 2: Only the minimum amount of vegetation shall be pruned or removed that is necessary to construct the project. Where possible, vegetation shall be tied back in lieu of cutting. Native vegetation that must be removed shall be cut at or above grade to facilitate re-growth. Any pruning that is done, including for utility line clearance, shall conform to the American National Standard for Tree Care Operation Tree, Shrub, and Other Woody Plant Maintenance Standard Practices, Pruning (ANSI A300 Part 1)-2008 Pruning, and the companion publication Best Management Practices: Tree pruning (ISA 2008). Roots shall only be unearthed when necessary.***

Biology Resource Impact No. 3: Plant species that are proposed for removal may harbor the plant pathogen *Phytophthora ramorum* (aka Sudden Oak Death or SOD).

- ***Biology Resource Mitigation Measure No. 3: All SOD host species plants and plant parts that are pruned or cut at the project site as part of this project must be disposed of within the limits of Sonoma County. Foliage that is chipped on site shall not be placed where it can enter Sonoma Creek.***

Biology Resource Impact No. 4: *If off-site staging areas for equipment and materials are used, it is possible trees would be removed to create a clear area. It is expected that most or all of the staging for construction equipment and materials would be within the road right of way. It is possible that the contractor could make private arrangements with an adjacent owner for use of additional space, and these arrangements could result in additional tree removal.*

- **Biology Resource Mitigation Measure No. 4:** *The standard construction contract language requires the contractor to comply with all laws and regulations (Caltrans Standard Specifications, section 7-1.01). The contractor shall be made aware that, If there is removal of any trees on private property in conjunction with this project, it shall be in accordance with the following: 1) the County Tree Protection and Replacement Ordinance; 2) the Sonoma County Valley Oak Stewardship Guidelines for valley oak trees removed within the Valley Oak Habitat combining district; and 3) the Heritage or Landmark Tree Ordinance. Enforcement of this measure shall be through a combination of the DTPW and PRMD staff.*

Significance After Incorporation of Mitigation Measures: Less than significant

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		

DISCUSSION: To construct the new bridge, Cast in Drilled Hole (CIDH) concrete piers would be drilled into the banks of the creek at the location of the abutments and at the center pier, with the number and size of the CIDH piers to be determined by the geotechnical investigation.

Biological Resource Impact No. 5: *The project may generate surplus soils for disposal off-site, and improper disposal of this material could affect off-site wetlands or other sensitive habitats.*

- **Biological Resource Mitigation Measure No. 5:** *All surplus soils that cannot be used on the project site shall be disposed of at an acceptable disposal site. If any areas outside the project site are used for disposal or stockpiling of soil or other materials, the contractor shall be required to demonstrate that the site has all the required permits, including, if applicable, a grading permit. The contractor shall notify the California Department of Fish and Game of the intent to use the site, and the Sonoma County Permit and Resource Management Department to determine if a grading permit is required. The contractor shall be required to provide evidence to the County that the site does not affect wetlands under the jurisdiction of the Army Corps of Engineers, or that the site has the appropriate permit from the Army Corps of Engineers. Surplus concrete rubble or pavement shall either be disposed of at an acceptable and legally permitted disposal site or taken to a permitted concrete and/or asphalt recycling facility.*

Significance After Incorporation of Mitigation Measures: Less than significant

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d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

DISCUSSION: Many of the trees at the project site provide habitat for song birds, and the removal of these trees during times of nesting could result in negative effects to young birds. In addition, barn swallows are typically found nesting underneath bridges throughout the county. Although the Watmaugh Road Bridge was not surveyed for swallows, it is assumed they would likely be present.

Biology Resource Impact No. 5: Tree removal may impact nesting birds along Sonoma Creek and bridge work and removal may impact nesting barn swallows.

Mitigation Measure 5:

The County will only allow trees to be removed from the project site after September 1, and before February 15 of the following year, when bird nesting is most likely avoided, unless a qualified biologist has inspected the site and determined that the tree removal will not affect nesting birds.

Beginning March 1st, the County shall install a bird barrier netting or other material to the underside of the entire bridge structure sufficient to prevent birds from nesting underneath areas where disturbance is to occur. The bird barrier shall be inspected every two weeks and repairs made as needed from installation until September 1st or until no longer needed. The netting shall be removed as needed to construct the project. If the project is not completed during the construction season following installation of the barrier, this mitigation will be implemented again beginning March 1st of the next year.

Significance After Incorporation of Mitigation Measures: Less than significant

e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

DISCUSSION: The Sonoma County Official Zoning Database indicates that the Zoning Districts adjacent to the project site include Biotic Resources (BR) and Valley Oak Habitat (VOH). The VOH extends along Watmaugh Road as far east as Highway 12; dense riparian habitat borders the banks of the creek near the project site forming the BR. Because the proposed bridge replacement would be located generally within the existing ROW, disturbance of the existing oaks and riparian habitat would be minimized.

Construction access would be from the southeast side of the bridge. This will require grading a road from the tip of the bank down to the channel bottom. Some pruning of willows and other riparian species will be required for preparation of the access road; however, cutting will be kept to a minimum. There are some California buckeye trees, black walnuts, and other trees on the path of the proposed access road that will likely not re-sprout if their main trunk is cut.

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See discussion 4 (b) and 4(c) for potential impacts and mitigation measures.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan?				X

There are no adopted Habitat Conservation Plans or Natural Community Conservation Plans applicable to the project site. Therefore, no impact to any adopted plans is anticipated.

5. CULTURAL RESOURCES. *Would the project:*

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	X			

Discussion: The Watmaugh Road Bridge is one of nineteen extant metal truss bridges and one of two remaining fixed Warren pony truss bridges in Sonoma County. On July 28, 1981 under Resolution #69974, the Sonoma County Board of Supervisors designated the Watmaugh Road Bridge as Sonoma County Historic Landmark #103. An "historical resource" (i.e., significant historic resource) under CEQA is an historic resource which meets one or more of the criteria for eligibility for inclusion on the National Register of Historic Places or the California Register of Historical Resources, or which meets the criteria for eligibility for inclusion on a local historic resources register or inventory. As the Watmaugh Road Bridge is a Sonoma County Historic Landmark, it is an historical resource under CEQA.

In May 2012 Tom Origer & Associates evaluated the Watmaugh Road Bridge for eligibility for inclusion on the California Register of Historical Resources (California Register). A resource eligible for inclusion on the California Register is one that meets one or more of the following Criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. Is associated with the lives of persons important to local, California, or national history.
3. Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of a master, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important to the prehistory or history of the local area, California, or the nation.

Tom Origer & Associates determined the Watmaugh Road Bridge is eligible for inclusion on the California Register under Criteria 1 and 3 as described below:

Criterion 1: The Watmaugh Road Bridge is representative of a period in California's history when

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construction of truss bridges was in decline, and is illustrative of a vanishing bridge form in Sonoma County. The bridge was part of a countywide highway plan approved by the Board of Supervisors and voters in 1919, and was designed to contribute to modernization of the county transportation system. The bridge represents an important aspect of the county's growth and development, and in particular the County's initial efforts to modernize its transportation system. The Watmaugh Road Bridge meets Criterion 1.

Criterion 2: No especially important people are associated with the Watmaugh Road Bridge. The Watmaugh Road Bridge does not meet Criterion 2.

Criterion 3: The Watmaugh Road bridge is a Warren pony truss bridge, of which many were constructed in the United States during the late 19th and early 20th centuries. The bridge is not a distinctive example of this style, but it is one of only two Warren pony truss bridges remaining in Sonoma County. Rarity of the Warren pony truss style lends the bridge importance under Criterion 3, as it embodies the distinctive characteristics of a type and period of construction. The bridge is not the work of a master bridge designer or builder, and was constructed for function rather than artistic merit. The Watmaugh Road Bridge meets Criterion 3.

Criterion 4: Criterion 4 generally applies to archaeological resources that could yield important analytical data related to prehistory or history. The Watmaugh Road Bridge does not meet Criterion 4.

In addition to meeting one or more of the above Criteria, a resource eligible for inclusion on the California Register must retain sufficient integrity to convey a sense of its significance or importance. As defined by the California Office of Historic Preservation, "Integrity is the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Seven aspects are considered in evaluating a resource's integrity: location, design, setting, materials, workmanship, feeling, and association. Tom Origer & Associates found the Watmaugh Road Bridge retains a high degree of integrity in all aspects. The location, setting, and feeling of the bridge are relatively unchanged, and the physical alterations to the bridge are limited to replacement of wood lattice rails with metal beam rails.

A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

Cultural Resource Impact No. 1: Because the proposed project would remove and replace an existing bridge designated as historically significant by the County and eligible for inclusion on the California Register of Historical resources, a potentially significant adverse impact to historical resources is anticipated.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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X

DISCUSSION: See item 5(a) above.

Cultural Resource Impact No. 2: There are no known archaeological resources on the site, but the project could uncover such materials during construction.

Cultural Resource Mitigation Measure No. 2 : If archaeological materials are

discovered during project construction, construction will cease in the immediate vicinity of the find until a qualified archaeologist is consulted to determine the significance of the find, and has recommended appropriate measures to protect the resource. Further disturbance of the resource will not be allowed until those recommendations deemed appropriate by the County have been implemented.

Significance After Incorporation of Mitigation Measures: Less than significant

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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X

Discussion: Paleontological resources are generally found in rock bearing material. The proposed project will require minimum excavations in previously disturbed areas, and not require excavations into rock substrate, thus, the likelihood of finding paleontological resources is very remote. See discussion and mitigation measure under Section 5 (b)

d) Disturb any human remains, including those interred outside of formal cemeteries?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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X

Discussion: No burial sites are known in the vicinity of the project, and most of the project site has already been disturbed by past construction.

Cultural Resource Impact No. 3: Native American burial sites may exist along Sonoma Creek and could be disturbed by the construction activities associated with the proposed project.

Cultural Resource Mitigation Measure No. 3: In the event that human remains are unearthed during construction, state law requires that the County Coroner be notified to investigate the nature and circumstances of the discovery. At the time of discovery, work in the immediate vicinity would cease until the Coroner permitted work to proceed. If the remains were determined to be prehistoric, the find would be treated as an archaeological site and the mitigation measure described in item 5(b) above would apply.

Significance After Incorporation of Mitigation Measures: Less than significant

6. GEOLOGY AND SOILS. Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer

X

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to Division of Mines and Geology
Special Publication 42.

Discussion: The project site would be located in Sonoma Valley. The County's 2020 General Plan Public Safety Element designates the project vicinity as subject to existing earthquake faults, high liquefaction, and very strong seismic shaking. However, because the replacement bridge would be constructed to current earthquake standards, no impact resulting from seismic activity is anticipated.

ii. Strong seismic ground shaking?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X
See discussion 6 (a).				
iii. Seismic-related ground failure, including liquefaction?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X
See discussion 6 (a).				
iv. Landslides?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: The project site is located in the lower elevations of the Sonoma Valley. No hillsides or geological structures are located near or adjacent to the proposed bridge replacement project. Therefore, no impact on the bridge that would result from landslides is anticipated.

i. Seismic-related ground failure, including liquefaction?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X
See discussion 6 (a).				
b) Result in substantial soil erosion or the loss of topsoil?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

Discussion: The soils on the project site are a Huichica-Wright-Zamora association, subject to a slight erosion hazard. These soils are somewhat poorly drained to well-drained, nearly level to strongly sloping loams to silty clay loams; on low bench terraces and alluvial fans.

Following construction, most areas disturbed by the project will be either covered with asphalt, or rock on the shoulders of the road or creek banks, and thus no potential for erosion. The only areas to remain uncovered following construction would be any new drainage ditches. If the project is constructed in the summer months, vegetation will reestablish quickly following the first rains in the fall. Because of the soil types and the flat nature of the site, no erosion control

measures are needed for the ditches if they are constructed in the summer.

If construction of the roadside ditches were to occur during the rainy season, eroded soil from the disturbed areas could enter the roadside drainage system and ultimately enter the receiving waterway. This eroded soil could degrade water quality and adversely affect aquatic life.

Grading of the project site would be required to accommodate the proposed bridge replacement. Stockpiling of soils onsite would occur within the staging areas proposed within the temporarily closed portion of Watmaugh Road leading to either side of the proposed bridge replacement project.

Excessive erosion could undermine the new bridge and impact water quality. The removal of vegetation, discussed above in item 4 (d), and disturbance of soil could lead to excessive erosion into Sonoma Creek. Although the mitigation in item 4 (d) is sufficient to offset the vegetation removal from the project area, it must be accompanied by erosion control measures to protect the ground surface until the plantings become established.

To maintain the integrity of the new bridge, erosion must be prevented on the banks below the new bridge abutments and where the new piers meet the channel bottom. The disturbed slopes on the creek banks will be susceptible to erosion, especially where soil is displaced to recreate natural contours.

Geology Impact No. 1: If the proposed project construction occurs during the winter months it is possible that stormwater could carry disturbed soil directly into Sonoma Creek.

- ***Geology Mitigation Measure No. 1:***

(a) If construction of new or filling of existing roadside ditches is to occur after October 1, the area worked on shall be isolated by straw wattles or gravel dams placed in the ditch up and downstream of the drainage ditches being worked on to filter water and prevent sediment laden water from traveling out of the work area. Following completion of all ditch work, the straw wattles or gravel shall be removed and straw shall be placed on the banks of all new roadside ditches within the project limits.

(b) Following construction or by October 15 of any construction year, the County shall require that all disturbed areas within the creek channel (top of bank to top of bank) shall be regraded to match adjacent contours. Jute mesh type or equivalent matting shall be placed over disturbed soils, and installed per the manufacturer's instructions. This matting shall extend a minimum of two feet beyond the edge of the disturbed areas, and shall be installed from the toe of slope up beyond the top of bank on both sides, and where soil has been replaced to eliminate the access roads. This matting shall have either no plastic incorporated into it, or any incorporated plastic shall be a photo-degradable type which breaks down in 1 - 2 years. In no case shall the entire mat be constructed of plastic. In addition, fiber rolls shall be fastened along the top of bank on both sides of the channel to intercept sheet flows of water from upland areas. Substitution of materials or erosion control methods shall require prior approval from PRMD and DTPW.

Geology Impact No. 2: There is a possibility that erosion control measures could fail.

- ***Geology Mitigation Measure No. 2 : The project site shall be inspected following the first heavy rain, during the middle of the rainy season and at the end of the***

rainy season following construction. During each visit, areas of significant erosion or erosion control device failure shall be noted and appropriate remedial actions taken.

Geology Impact No. 3: The drainage ditch extensions would leave some disturbed areas up and downstream of the new approaches. Inlets and outlets of the drainage ditches are areas typically subject to erosion due to runoff from the roadway. If this area were to erode, the sediment would travel to the receiving waterway possibly impacting aquatic life. After vegetation becomes established, this erosion potential would be reduced.

- ***Geology Mitigation Measure No. 3:***

(a) By October 1, a wood fiber erosion control blanket (Curlex 1 by American Excelsior Company or equivalent) shall be applied to the disturbed areas up and downstream of the new drainage ditches along Watmaugh Road. The blanket would cover from two feet beyond the top of bank on both sides of the ditch and would cover the entire bottom and banks of the ditch. Installation would be per the Manual of Standards for Erosion and Sediment Control Measures (Association of Bay Area Governments, May 1995) or the method recommended by the manufacturer. This blanket would have either no plastic incorporated into it, or, if the blanket does have plastic in it, the plastic would be a photo-degradable type which breaks down in 1 - 2 years.

(b) Following construction or by October 31 of any construction year, the County shall require that all disturbed areas outside the creek channel will be hydroseeded. The hydro-seed mix shall not contain fertilizer.

Geology Impact No. 4: Work on the bridge will likely continue during the winter and increase possible erosion.

- ***Geology Mitigation Measure No. 4:***

(a) Winter work activities (after October 31) may occur outside the channel but vehicular access shall be restricted to previously paved or rocked surfaces, and work shall include only those activities which do not result in the disturbance of new soil.

(b) All stockpiled materials and debris shall be removed from the site on or before October 31 of any construction year.

(c) Substitution of materials or construction methods shall require prior approval from PRMD and DTPW.

(d) The project site shall be inspected by County staff after storm events that produce 1 inch of rain or greater within 24 hour period in the Santa Rosa area. During every inspection, areas of significant erosion or erosion control device failure shall be noted and appropriate remedial actions will be taken as soon as practical. If erosion control measures appear to be effective for three consecutive site inspections following 1-inch storm events, then site inspections shall only be required following storm events that result in 2 inches of rain, or greater, within a 24-hour period in the Santa Rosa area. At the end of the rainy season, County staff shall reinspect the site and evaluate the effectiveness of the erosion control measures that were used. If there were problem areas at the site, recommendations shall be made to improve methods used in subsequent projects.

Significance After Incorporation of Mitigation Measure: Less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact X	No impact
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See discussions 6 (a) and (b).

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact X	No impact
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Discussion: Table 18-1-B of the Uniform Building Code is an index of the relative expansive characteristics of soil as determined through laboratory testing. For the proposed project, soils at the site have not been tested for their expansive characteristics. Check further if it is a building or if geologic report addresses it. No substantial risks to life or property would be created from soil expansion at the proposed project, even if it were to be affected by expansive soils. Therefore, less-than-significant impacts caused by expansive soils are anticipated.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact X
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The proposed project would not generate waste water or sewage; consequently, the need for septic tanks and waste water disposal systems are not anticipated.

7. GREENHOUSE GAS EMISSIONS. *Would the project:*

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact X	No impact
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DISCUSSION: The Bay Area Air Quality Management District's (BAAQMD) Greenhouse Gas Emissions (GHG) threshold is defined in terms of carbon dioxide equivalent (CO₂e), a metric that accounts for the emissions from various greenhouse gases (including motor vehicles) based on their global warming potential. If annual emissions of operational-related GHGs exceed these threshold levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change. No such contribution of GHG is expected with the proposed project.

The construction phase of the proposed project is not subject to thresholds of significance (BAAQMD Air Quality CEQA Thresholds of Significance - Table 2-1). Nevertheless, Best Management Practices (BMPs) are applied by DTPW during the construction phase to assist in lowering GHGs pursuant to AB 32 GHG reduction goals. These construction phase BMPs include:

- Restricting the idling time for all construction vehicles.

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- Limiting construction times to Monday through Friday, from 7 AM to 7PM.
- See Noise discussion 12 (d) – reduction of equipment operations.

The operational-related phase thresholds for the proposed project (i.e., public lands and facilities) do apply and are considered significant when the GHG levels are in excess of 1,100 metric tons (MT) of CO₂e/yr or 4.6 MT CO₂e/ residents+employees/yr. (BAAQMD Air Quality CEQA Thresholds of Significance - Table 2-1). GHG contributions of this magnitude are not anticipated with the proposed replacement of the Watmaugh Road bridge because the project will not generate new traffic and traffic volumes are expected to be similar to the existing traffic volumes on Watmaugh Road.

It is expected that the replacement of the existing bridge should generate the same baseline GHG emission levels because no additional travel lanes are proposed and no traffic controls (e.g., stop signs or signalization) are proposed. Watmaugh Road would continue to operate as a “Rural Minor Collector” with a Level-of-Service (LOS), or better, as specified in the Sonoma County General Plan 2020 Circulation and Transit Element. The estimated total Average Daily Trips (ADTs) of 3,777 (County of Sonoma Traffic Volumes - January 2008 - December 2010) along Watmaugh Road are expected not to change as a result of the proposed project. Consequently, the proposed bridge replacement would operate at, or less than, current GHG emission levels associated with the existing bridge on Watmaugh Road. Based on these assumptions and the fact that any impact would be related to the temporary closing of the bridge, a less-than-significant impact to GHGs is anticipated with the proposed bridge replacement

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

The proposed bridge replacement appears to be consistent with the County’s Climate Action Plan for reducing GHGs. Therefore, no impact or conflict with applicable plans is anticipated with the proposed project.

8. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

Discussion: Construction will require use of fuels and other hazardous materials. Improper storage or handling of these materials could result in spills. The project staging area would be located within a closed portion of the existing ROW during construction. Although no significant biotic resources, including creeks and streams, cross the proposed staging area, the proposed bridge replacement would cross Sonoma Creek. Potential impacts from spills into the creek can be reduced to a less-than-significant level by requiring standard approved construction methods for handling hazardous materials.

Hazards and Hazardous Materials Impact No. 1: The use of fuels and other hazardous materials during the construction phase could result in accidental spills.

- **Hazardous Mitigation Measure No. 1: The construction contract shall require that**

any storage of flammable liquids be in compliance with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification (or the functional equivalent) for the protection of surface waters. In the event of a spill of hazardous materials the Contractor shall immediately call the emergency number 9-1-1 to report the spill, and shall take appropriate actions to contain the spill to prevent further migration of the hazardous materials to stormwater drains or surface waters.

Significance After Incorporation of Mitigation Measure: Less-than-significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

Discussion: Replacement of the existing bridge would involve using hazardous materials near Sonoma Creek. Accidental spills could occur causing potential contamination of the water body and adverse impacts on aquatic life forms.

Hazards and Hazardous Materials Impact No. 2: The entire project site is known to flood. Therefore, it is possible that chemical storage containers (e.g., fuel containers, chemical toilets) could become inundated by floodwaters and result in a discharge of chemicals into the creek, thereby affecting aquatic life.

- Hazards and Hazardous Mitigation Measure No. 2: At any time during the construction year that work is temporarily suspended due to potential flooding of the project site, all storage containers containing hazardous materials, including fuel, shall be removed from the project site until work is resumed. All chemical toilets shall be on trailers (or otherwise mobile) and shall be moved outside the FEMA 100-yr floodplain along with construction equipment until work is resumed.**

Significance After Incorporation of Mitigation Measure: Less-than-significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

There are no existing or proposed schools within 0.25 miles of the project site.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: The project site was not identified on, or in the vicinity of, any parcels on lists compiled by the California Environmental Protection Agency, Regional Water Quality Control Board, California Department of Toxic Substances, and the California Integrated Waste management Board.

Therefore, no impact from hazardous materials is anticipated with the implementation of the proposed project.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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Discussion: The Sonoma Valley Airport, a public-use airport, is located approximately 2 miles south of the Watmaugh Road bridge. Replacement of the bridge would not include obstructions to flight paths nor any lights or glare that would potentially interfere with flight safety. Therefore, no impacts to airport safety are anticipated with the implementation of the proposed project.

f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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Discussion: No private airstrips are located in the vicinity of the proposed project. Therefore, no impacts to private airstrips are anticipated with the implementation of the proposed project.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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Discussion: The project would not impair implementation of, or physically interfere with the County's adopted emergency operations plan. There is no separate emergency evacuation plan for the County. In any case, the project would not permanently change existing circulation patterns significantly, and would have no effect outside the area. See Item 16(e) for discussion of emergency access.

h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas of where residences are intermixed with wild lands?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
	-----	-----	-----	X

Discussion: The project would not expose people to risk from wild land fires. It will not construct buildings that would be occupied by people or structures that would be affected by wild land fires. Therefore, no impacts to people or structures from wild land fires are anticipated with the implementation of the proposed project.

9. HYDROLOGY AND WATER QUALITY. *Would the project:*

Environmental Checklist

a) Violate any water quality standards or waste discharge requirements?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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X

Discussion: Permits from the Regional Water Quality Control Board, Army Corps of Engineers, California Department of Fish and Game, and Sonoma County Permit and Resource Management Department will all be obtained prior to project implementation. Compliance with the requirements set forth by these permits, along with Mitigation Measures contained in Sections 4 and 6 of this Initial Study, will ensure that water quality standards are not violated. Therefore, potentially significant impacts resulting from the proposed project would be reduced to less-than-significant levels with the incorporation of these mitigation measures.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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X

Discussion: The project will not require the use of groundwater supplies; consequently, no depletion of groundwater supplies, or interference with groundwater recharge rates, is anticipated. The addition of a very small amount of additional impervious will not substantially interfere with groundwater recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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X

Discussion: The drainage patterns in the project area will be slightly altered by relocating the impermeable roadway surfaces, but the changes will not cause substantial erosion. The potential for significant erosion from the project stems from the removal of vegetative cover and ground disturbance associated with construction, not the relocation of the roadways. See items 4 (b) and 6 (b) for the discussion of the impacts and mitigation measures associated with erosion. With the incorporation of these mitigation measures, a less-than-significant impact from erosion is anticipated.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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X

Discussion: The new bridge deck would be approximately 30 inches higher than the existing bridge deck to allow the new bottom or soffit of the concrete box structure to be one foot above the FEMA Flood Profile 100 year storm water surface.

The drainage patterns in the project area may be slightly altered as a result of relocating the approaches to the replaced bridge, but the changes will not increase surface runoff and cause flooding. Flooding may intermittently occur at the project site after large storm events, as it does currently, and the minor alteration of drainage patterns associated with the project will not add to the frequency of flooding at the project site. Therefore, a less-than-significant impact caused by flooding is anticipated with the implementation of the proposed project.

e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

Discussion: Runoff water from the proposed project is estimated to be consistent with the existing volumes and discharge points associated with the existing bridge. Construction activities may cause polluted runoff to enter Sonoma Creek.

Hydrology and Water Quality Impact No. 1: The washing of equipment in areas where the water could flow into the creek is a potentially significant impact.

Hydrology and Water Quality Mitigation Measure No. 1: See Mitigation Measure 2(b.)

Significance After Incorporation of Mitigation Measure: Less-Than-Significant.

f) Otherwise substantially degrade water quality?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

Discussion: See Hydrology and Water Quality discussion 8(b).

Hydrology and Water Quality Impact No. 1: Construction will require use of fuels and other hazardous materials. Improper storage or handling of these materials could result in spills that will substantially degrade water quality. Since the staging area for the project will be immediately adjacent to the channel, extra precautions need to be taken to ensure that the use and storage of hazardous materials do not present potential threats to the water quality of Sonoma Creek.

- **Hydrology and Water Quality Mitigation Measure No. 1:**

(a)The County shall not allow any equipment to be operated in the flowing waters of Sonoma Creek at any time.

(b): The construction contract shall require that any storage of flammable liquids be in compliance with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification (or the functional equivalent)for the protection of surface waters. In the event of a spill of hazardous materials, the contractor shall immediately call the emergency number 9-1-1 to report the spill, and shall take

appropriate actions to contain the spill to prevent further migration of the hazardous material to the surface waters of Sonoma Creek.

(c): The County shall not allow any motorized equipment (besides the stationary crane drill rig attached) to be left within the Sonoma Creek channel (top of bank to top of bank) overnight. A container or similar method shall be securely placed beneath the crane to catch any fluid leakage. All contained fluids shall be disposed of in a permitted manner.

(d): To minimize fluid leaks during operation, refueling, and maintenance of stationary equipment (crane with drill rig attached), spill control absorbent material shall be in place underneath this equipment at all times to capture potential leaks.

(e): All refueling and maintenance of equipment (other than the stationary crane) shall occur outside the channel of Sonoma Creek (top of bank to top of bank). Receptacles containing fuel, oil, or any other substance that may adversely affect aquatic resources shall be stored outside of the channel. Any hazardous chemical spills shall be cleaned up immediately.

(f): Prior to construction, the contractor shall be required to prepare an Accidental Spill Prevention and Cleanup Plan. This plan shall include requiring spill control absorbent material to be present on site and available at all times.

Hydrology and Water Quality Impact No. 2: Water quality may also be degraded from water used to wash concrete trucks if it is allowed to run directly into the channel of Sonoma Creek.

- Hydrology and Water Quality Mitigation Measure No. 2: No equipment, including concrete trucks, shall be washed within the channel of the creek, or where wash water could flow into the channel. Prior to project construction, the contractor shall establish a concrete washout area for concrete trucks in a location where wash water will not enter Sonoma Creek. The washout area shall follow the practices outlined in the San Francisco Bay Regional Water Quality Control Board Erosion and Sediment Control Field Manual (revised 2002) or equivalent guidelines. Substitution of the designated concrete washout area or methods shall require prior approval from PRMD and the DTPW.***

To construct the new bridge, Cast in Drilled Hole (CIDH) concrete piers would be drilled into the banks of the creek at the location of the abutments and at the center pier, with the number and size of the CIDH piers to be determined by a geotechnical report.

Drilling of CIDH piles may require the use of drilling lubricants (drilling mud). Some of these muds are toxic to aquatic life, and some are available that are non-toxic. A slurry seal may also be used to keep pier holes from collapsing during the drilling operation. If drilling muds and/or slurry seal were to be used during construction, these materials could enter Sonoma Creek, resulting in a potential impact to water quality and to aquatic life. In addition, water will likely enter holes during drilling. Besides potentially containing toxic substances from the drilling operation, this water could contain suspended sediments.

Hydrology and Water Quality Impact No. 3: If muddy water were to be discharged back into Sonoma Creek, it could increase turbidity, which can also affect aquatic life.

- Hydrology and Water Quality Mitigation Measure No. 3: If drilling of CIDH piles is conducted, the County shall require the contractor to use a drilling mud and slurry seal that is non-toxic to aquatic life for all drilling activities. All drilling muds and***

fluid within all drilled holes shall be contained on site in tanks, removed from the project area, and disposed of in a permitted manner.

Hydrology and Water Quality Impact No. 4: If CIDH spoils material were to be left within the Sonoma Creek channel or adjacent floodplain (the entire site floods annually), it would be a significant new source of sediment that could enter the creek and degrade water quality.

- Hydrology and Water Quality Mitigation Measure No. 4: If drilling of CIDH piles is conducted, the County shall require that all spoils materials from drilled pier holes be removed from the Sonoma Creek channel and adjacent FEMA 100-yr floodplain by October 15, and disposed of in a permitted manner.***

Significance After Incorporation of Mitigation Measures: Less-than-Significant

g) Place housing within a 100-year hazard area as mapped on a federal Flood hazard Boundary of Flood Insurance Rate Map or other flood hazard delineation map?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: The project will not result in the construction of any housing. Therefore, no impact to housing is anticipated with the implementation of the proposed bridge replacement.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
			X	

Discussion: The project site is within the 100-year flood hazard area of Sonoma Creek as defined on FEMA's Flood Insurance Rate Maps. The proposed replacement bridge would not impede flows as much as the existing bridge because the piers supporting the bridge would be relocated out of the flowing water. By having fewer piers extending down into the channel, and the dual span centered outside of the thalweg (middle of channel) of Sonoma Creek, the new bridge will reduce the amount of debris that can become obstructed under the bridge. Also, the new bridge will be approximately 1 ft higher in elevation than the existing bridge, which may result in fewer closures of the crossing. The new bridge deck will be approximately 30 inches higher than the existing bridge deck to allow the new concrete box structure to be one foot above the FEMA Flood Profile 100 year storm water surface. Although some impedance of flood flows would remain, the proposed project would likely improve upon any potential flooding problem during future 100-year floods. Therefore, less-than-significant impacts from 100-year floods are anticipated from the proposed replacement bridge.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
			X	

Discussion: See Hydrology and Water Quality discussion 9 (d) and 9 (h). Since the new bridge
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would be constructed to higher standards than the existing bridge, there is no increase risk of flooding at the project site. Therefore, less-than-significant impacts to people or structures are anticipated from the proposed project.

- | | | | | |
|---|--------------------------------|---|------------------------------|-----------|
| j) Inundation by seiche, tsunami, or mudflow? | Potentially Significant Impact | Less than Significant with Mitigation Incorporation | Less than Significant Impact | No impact |
|---|--------------------------------|---|------------------------------|-----------|

X

Discussion: The project is not subject to seiche, tsunami or mudflow because it is several miles inland from the Pacific Ocean. Therefore, no impact from seiche, tsunami or mudflow is anticipated with the implementation of the proposed project.

10. LAND USE AND PLANNING. *Would the project:*

- | | | | | |
|--|--------------------------------|---|------------------------------|-----------|
| a) Physically divide an established community? | Potentially Significant Impact | Less than Significant with Mitigation Incorporation | Less than Significant Impact | No impact |
|--|--------------------------------|---|------------------------------|-----------|

X

Discussion: The project would not divide a community because it would replace an existing bridge. Therefore, no impact from dividing an established community is anticipated with the implementation of the proposed project.

- | | | | | |
|---|--------------------------------|---|------------------------------|-----------|
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | Potentially Significant Impact | Less than Significant with Mitigation Incorporation | Less than Significant Impact | No impact |
|---|--------------------------------|---|------------------------------|-----------|

X

Discussion: Section 65402 (a) of the California Government Code of Regulations requires that public and private projects be reviewed for conformity with the applicable County General Plan. The Comprehensive Planning Division of the Sonoma County Permit and Resource Management Department has reviewed the proposed project (PPR12-06-05) and found it to be consistent with the Sonoma County General Plan. While that is the case the existing bridge is zoned as a Historic District (HD) and is listed as Sonoma County Landmark bridge. The HD Zoning District (article 68) was established to protect those structures that serve as remainders of past years, provide significant examples of architectural styles of the past or are unique and irreplaceable County assets. The HD District accomplishes these protections by requiring that any alterations or demolitions proposed to be made to a structure located within the HD District be reviewed for a recommendation to the Board of Supervisors by the Sonoma County Landmarks Commission. The standards that govern the Landmarks Commissions recommendations include procedures specifically established for the Historic Zoning District that the bride is located within. In this case, the Board of Supervisors established specific procedures to be used for review of projects within the Historic Bridge District. The purpose is to afford long term protection of these bridges and ensure that modifications are not detrimental to their historic integrity. While the emphasis must be on preservation, the need for safe and serviceable transportation infrastructure required that some provision be made for emergency repairs without the need for review by the Landmarks Commission. In addition, before a bridge may be removed, the procedures require that an initial

study be prepared and alternatives to removal be considered.

Several meetings have taken place with the Landmarks Commission over the past two-years to discuss this project and various project alternatives. On July 24, 2012, the Sonoma County Landmarks Commission reviewed an Initial Study, a set of alternatives and other materials that were prepared per the required procedures for the proposed bridge replacement project. The conclusion made by the Commission was that they recommend denial of the proposed bridge replacement project in part because the loss of the bridge would conflict with the HD zoning and the replacement project may result in the need to rezone the site to remove the bridge from the HD Combining Zone and would be a potentially significant impact.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: The project does not conflict with any habitat conservation plans or natural community conservation plans adopted in Sonoma County. Therefore, no impact to habitat conservation plans or natural community conservation plans are anticipated with the implementation of the proposed project.

11. MINERAL RESOURCES. *Would the project:*

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: There is no known mineral resource on the project site. Therefore, no impact to known mineral resources is anticipated from the implementation of the proposed project.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: The project site is not a mineral resource recovery site. Therefore, no impact to the local availability of mineral resources is anticipated by the implementation of the proposed project.

12. NOISE. *Would the project:*

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
			X	

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Discussion: No sensitive receptors are expected to be located within the noise contours that would create significant noise impacts over and beyond what currently exists adjacent to the existing bridge. Therefore, less than significant impacts resulting from project generated noise levels are anticipated.

Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: Constructing the new bridge will require drilling into the soil for CIDH piles, which is likely to create some minor very local ground borne vibration and noise. Generation of ground borne vibration at the project will be minor and temporary and is not expected to significantly affect the nearest sensitive receptors. (1)

See discussion under Noise 12 (a).

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

See discussion under Noise 12 (a).

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

Discussion: Construction activities could create significant noise impacts. These impacts will cease when construction is finished. Noise is expected from increased truck traffic and other various engine sources during most phases of construction and pile driving/drilling during a small portion of the construction period. Without restrictions, these noise sources could have a potentially significant impact despite occurring over 160 ft away from the nearest sensitive receptor. If unsuitable equipment is used, or if construction is allowed at inappropriate times, then the impacts from noise could be significant. The following mitigation measure will reduce the noise impact from construction activities and hauling to less than significant. (1)

Noise Impact No. 1: There would be potentially significant noise impacts from the short-term construction activities.

- Noise Mitigation Measure No. 1:**

Construction activities for this project shall be restricted as follows:

(a) All internal combustion engines used during construction of this project will be operated with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code.

(b) Except for actions taken to prevent an emergency, or to deal with an existing emergency, all construction activities shall be restricted to the hours of 7:00 am and 7:00 pm on weekdays and 9:00 am and 5:00 pm on Saturday's and no work on Sunday's or holidays. Only work that does not require motorized vehicles or power equipment shall be allowed on Sundays or holidays (1). If work outside the times specified above becomes necessary due to an emergency, the resident engineer shall notify the PRMD Environmental Review Division as soon as practical.

Significance After Incorporation of Noise Mitigation Measure: Less-Than-Significant

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
	-----	-----	-----	X

Discussion: The proposed bridge replacement project would not include any residential or employment activities. Receptors to excessive noise levels would not be included in the proposed project. Therefore, no impact from excessive noise is anticipated from the proposed project.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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See discussion Noise 12 (e).

13. POPULATION AND HOUSING. *Would the project:*

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
	-----	-----	-----	X

Discussion: The project would have no direct or indirect effect on population. It would consist of a new bridge without any housing or growth inducing development. It would not attract new workers to the area. Therefore, no impact to population growth, housing or road extensions is anticipated.

b) Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
	-----	-----	-----	X

Discussion: No housing will be displaced by the project. Therefore, impacts caused by displacing existing housing or the need to construct new housing are not anticipated.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: No people will be displaced by the project; see Population and Housing discussion 13 (b). Therefore, impacts caused by constructing replacement housing are not anticipated.

14. PUBLIC SERVICES. *Would the project:*

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:

i. Fire protection?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: During construction, the bridge will be closed and a detour will be established. The alternate routes during this closure are both from the north and the south, via Leveroni Road and State Highway 121. The maximum length of the temporary detour would be about 4-miles so the project would not substantially decrease emergency response times in the area. Therefore, no substantial adverse impacts to fire protection or response times are anticipated.

ii Police?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
			X	

Discussion: The Sonoma County Sheriff would continue to serve this area. There would be no increased need for police protection resulting from the replacement of the existing bridge. Therefore, no impact to police protection is anticipated.

iii Schools, parks, or other public facilities?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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X

Discussion: The proposed project will not result in the need for new public facilities or utilities, but it is possible that existing public utilities buried within the construction area can become damaged during excavation activities. Standard contract language requires that the construction contractor call Underground Service Alert (USA) and provide them with all necessary data relative to the proposed work so that participating agencies with utilities in the area will mark their locations in the field using USA standard colors and codes to identify the facility. The contractor is then required to work around public utilities and other improvements that are to remain in place within the construction area. Therefore, no impact to schools, parks, or other public facilities is anticipated with the implementation of the proposed bridge replacement.

15. RECREATION. *Would the project:*

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: The proposed bridge replacement would have no effect on population growth or the distribution of the population, and would have no effect on park use because the project would create no new housing or increased demand for recreational facilities. Therefore, no impacts to existing neighborhood and regional parks or other recreational facilities are anticipated with the implementation of the proposed project.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

See Recreation discussion 15 (a).

16. TRANSPORTATION / TRAFFIC. *Would the project:*

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

Discussion: Because the proposed project would replace the existing bridge, a detour of existing traffic volumes would be necessary during construction. The closest road crossing over Sonoma Creek is Leveroni Road bridge, north of the project site. Using Leveroni Road as a detour route would add approximately 10-15 minutes to the existing commute that would

otherwise use Watmaugh Bridge.

Leveroni Road crosses Sonoma Creek and connects Hwy 12 with Arnold Drive. Leveroni Road ADTs range from 4739 to 5357; AM/PM peaks range from 318-503 and 399-503 respectively. The proposed project would temporarily add to Leveroni Road bridge the volumes associated with Watmaugh Road: 1652 to 2111 ADT; 150-190 AM peak and 143 to 201 PM peak. (County of Sonoma Traffic Volumes, January 2008 through December 2010)

During construction, traffic will use the existing Watmaugh roadway leading to the existing bridge until the new bridge and approaches are prepared, then traffic will be directed onto the new bridge. There may be infrequent traffic delays during certain times when the contractor must have the roadway clear or reduced to one lane.

Traffic Impact No. 1: Existing traffic volumes crossing Watmaugh Bridge would not be able to use the Watmaugh bridge during construction of the replacement bridge.

- ***Traffic Mitigation Measure No. 1: Existing traffic volumes crossing Watmaugh Bridge shall be temporarily detoured to Leveroni Bridge until construction of the replacement bridge on Watmaugh Road is completed.***

Traffic Impact No. 2: During construction and closure of the bridge there is a potential for lengthy delays.

- ***Traffic Mitigation Measure No. 2: If lengthy delays are anticipated, signs shall be placed at all entrances to the project site and on major intersecting roads, including Leveroni bridge to notify motorists that traffic will be subject to delay.***

Significance After the incorporation of Mitigation Measures: Less-than-Significant

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
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Discussion: Watmaugh Road would continue to operate as a "Rural Minor Collector" as specified in the Sonoma County General Plan 2020 Circulation and Transit Element. The estimated total Average Daily Trips (ADTs) of 3,777 (County of Sonoma Traffic Volumes - January 2008 - December 2010) along Watmaugh Road are expected not to change as a result of the proposed project. Consequently, the proposed bridge replacement would operate at, or less than, current levels-of-service associated with the existing bridge on Watmaugh Road. Therefore, no conflict or impact with an applicable congestion management program, including, but limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways is anticipated with the implementation of the proposed project. .

c) Result in change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
	-----	-----	-----	X

Discussion: The Sonoma Valley Airport, a public-use airport, is located approximately 2 miles south of the Watmaugh Road bridge. Replacement of the single-story bridge would not include obstructions to flight paths nor any lights or glare that would potentially interfere with flight safety. The project would have no effect on air traffic patterns because it would not be located near an airport nor does it include physical design elements that would interfere with air traffic patterns or cause air safety impacts. Therefore, no impacts to air traffic patterns or air safety is anticipated for the proposed project.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

Discussion: The proposed replacement bridge would not include hazardous design features. Approaches on both sides of the proposed bridge would be realigned to improve the flow of traffic and the line-of-sight for the traveling public.

Traffic Impact No. 3: Temporary traffic hazards could arise during construction and, therefore, necessitate traffic control during the construction phase of the proposed project.

- **Traffic Mitigation Measure No. 3: Traffic safety guidelines compatible with Section 12 of the Caltrans Standard Specifications, "Construction Area Traffic Control Devices" shall be followed during construction. Project plans and specifications shall also require that adequate signing and other precautions for public safety be provided during project.**

Significance after Incorporation of Mitigation Measure: Less than significant

e) Result in inadequate emergency access?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
		X		

Discussion: Construction activities may result in traffic delays possibly slowing emergency response vehicles or restricting access to residences or nearby businesses. This is a short term construction related impact that will cease upon project completion. The existing bridge would be closed to traffic during construction. Alternate routes are available within the vicinity of Watmaugh Road to both the north and south, via Leveroni Road and State Highway 12/121. The maximum detour length would be approximately 5 miles.

Transportation Impact No. 4: Emergency vehicles may be delayed during construction of the proposed bridge replacement.

- **Transportation Mitigation Measure No. 4:**
 - (a) **Local emergency services shall be notified by DTPW prior to construction to inform them of traffic delays, proposed construction schedule, and detour routes.**
 - (b) **The County shall require the contractor to provide for passage of emergency vehicles to the project site and neighboring properties at all times.**

(c) The County shall require the contractor to maintain access to all parcels during project construction.

Significance After Incorporation of Mitigation Measure: Less-than-significant.

Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: Watmaugh Road is not designated as a bike path in County's 2020 General Plan. The proposed bridge replacement would not include public transit facilities. Shoulder widths of approximately 5-8 feet would provide adequate area for bicycles and pedestrians to traverse the length of the bridge replacement. No decrease in performance of bike trails is expected. Therefore, no impacts to adopted policies, plans, or programs regarding public transit, bike paths or pedestrian facilities are anticipated.

17. UTILITIES AND SERVICE SYSTEMS. *Would the project:*

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: Because the proposed bridge replacement would not generate any septic effluent or wastewater discharge, no treatment of wastewater would be required. Therefore, no impact resulting from exceeding wastewater treatment standards is anticipated.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

See Utilities and Service Systems discussion 17 (a).

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No impact
				X

Discussion: The proposed bridge replacement would not require the installation of new storm water drains. Existing surface runoff drains indirectly into Sonoma Creek and would continue to do so with the proposed project.

d) Have sufficient water supplies	Potentially Significant	Less than Significant	Less than Significant	No impact
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available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Impact

with
Mitigation
Incorporation

Impact

X

Discussion: The proposed project would not include any buildings or structures requiring new or expanded water supplies. Therefore, no impact to water supplies or the need to expand water supplies is anticipated.

Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Potentially
Significant
Impact

Less than
Significant
with
Mitigation
Incorporation

Less than
Significant
Impact

No impact

X

See Utilities and Service Systems discussion 17 (a).

e) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Potentially
Significant
Impact

Less than
Significant
with
Mitigation
Incorporation

Less than
Significant
Impact

No impact

X

Discussion: Sonoma County has a solid waste management program in place that provides solid waste collection and disposal services for the entire County. The program can accommodate the permitted collection and disposal of the waste that will result from the temporary construction phase of the proposed project. Therefore, no impact to landfill capacity is anticipated with the implementation of the proposed project.

g) Comply with federal, state and local statutes and regulations related to solid waste.

Potentially
Significant

Impact
Less than
Significant
with
Mitigation
Incorporation

Less than
Significant
Impact

No impact

X

See Utilities and Service Systems discussion 17 (f).

18. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment,

Potentially
Significant
Impact

Less than
Significant
with Mitigation
Incorporation

Less than
Significant
Impact

No impact

Environmental Checklist

substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

X

Discussion: The incorporation of the mitigation measures included in Sections 4 (Biological Resources) would reduce potential impacts to fish, wildlife, plants, to a less-than-significant level. While that is the case, the proposed project would remove and replace an existing Sonoma County Historic Landmark that is eligible for inclusion on the California Register of Historical Resources. This action would substantially reduce the value and integrity of that resource resulting in a potentially significant adverse impact to an historical resource under CEQA (See Section 5 Cultural Resources).

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Potentially
Significant
Impact

Less than
Significant
with Mitigation
Incorporation

Less than
Significant
Impact

No impact

X

Discussion: Cumulative impacts are impacts on the environment that result from the incremental impacts of a proposed project when added to other past, present, and reasonably foreseeable future actions (State CEQA Guidelines Section 15355[b]). The proposed project will remove a local Landmark status bridge that has been found eligible for the State Register of Historical Places. The loss for this resource may be cumulatively considerable and the EIR will examine the cumulative effects of the proposed project.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially
Significant
Impact

Less than
Significant
with Mitigation
Incorporation

Less than
Significant
Impact

No impact

X

Discussion: The proposed bridge replacement would reduce the safety hazards associated the existing bridge crossing Sonoma Creek. Many structural deficiencies that plague the existing structure, including load limitations and the lack of seismic upgrades, would be reduced or eliminated with the implementation of the proposed bridge replacement. Because the proposed project represents a net decrease in environmental effects that could adversely impact human beings, either directly or indirectly, no impact to human beings is anticipated with the implementation of the proposed project.

Sources:

- 1) PRMD staff evaluation based on review of the project site and project description.
- 2) PRMD staff evaluation of impact based on past experience with construction projects.

Environmental Checklist

- 3) Sonoma County Important Farmland Map 1996. California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program.
- 4) Assessors Parcel Maps.
- 5) BAAQMD CEQA Guidelines; Bay Area Air Quality Management District; April 1999; California Air Resources Board (CARB) <http://www.arb.ca.gov/>
- 6) California Natural Diversity Database, California Department of Fish & Game.
- 7) Sonoma County General Plan GP 2020 Sonoma County Board of Supervisors, December 8, 2009.
- 8) California Environmental Protection Agency
<http://www.calepa.ca.gov/SiteCleanup/corteseList/default.htm>; California Regional Water Quality Control Board - <http://geotracker.swrcb.ca.gov/>; California Dept of Toxic Substances Control http://www.dtsc.ca.gov/database/calsites/cortese_list.cfm, and Integrated Waste Management Board - <http://www.ciwmb.ca.gov/SWIS/Search.asp>
- 9) Alquist-Priolo Special Studies Zones; State of California; 1983
- 10) Flood Insurance Rate Maps, Federal Emergency Management Agency.
- 11) Special Report 120, California Division of Mines and Geology; 1980.
- 12) General Plan Consistency Determination, (65402 Review), Sonoma County Permit & Resource Management Department 5/2012.
- 13) Standard Specifications, State of California Department of Transportation, available online: http://www.dot.ca.gov/hq/esc/oe/specs_html
- 14) American National Standard for Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices, Pruning (ANSI A300 (Part 1)-2008 Pruning), American National Standard Institute (ANSI) and National Arborist Association (NAA)
- 15) Best Management Practices: Tree Pruning, International Society of Arboriculture (ISA), 2008.
- 16) Tree Protection and Replacement Ordinance (Ordinance No. 4014); Sonoma County.
- 17) Valley Oak Protection Ordinance (Ordinance No. 4991); Sonoma County, December 1996.
- 18) Manual of Standards for Erosion and Sediment Control Measures, Association of Bay Area Governments; May, 1995.
- 19) Soil Survey of Sonoma County, California, Sonoma County, U.S. Department of Agriculture; 1972.
- 20) Evaluation of Groundwater Resources, California Department of Water Resources; 1975.
- 21) Sonoma County Congestion Management Program, Sonoma County Transportation Authority; December 18, 1995.
- 22) Sonoma County Bikeways Plan, Sonoma County Department of Transportation and Public Works; April, 1997.
- 23) Historic Property Survey Report for the Watmaugh Road Bridge at Sonoma Creek Bridge Tom Origer and Associates, January 22, 2001 revised June 14th 2011.
- 24) State of California Office of Historic Preservation, (SHIPO) letter to FHWA

APPENDIX E RELATED COMMUNICATIONS

- E1 - Caltrans Bridge Inspection Report Dated April 19, 2012.

- E2 - Letter from Caltrans to Mr. Glen Wallis Bridge Engineer (County of Sonoma) February 29, 2000.

- E3 - Technical Memorandum from Sonoma County DTPW to PRMD Staff regarding funding sources.
 April 23, 2012.



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 20C0017
Facility Carried: WATMAUGH ROAD
Location : 0.3 MI WEST OF SR 12
City :
Inspection Date : 04/19/2012

Bridge Inspection Report

Inspection Type

Routine FC Underwater Special Other

☒

STRUCTURE NAME: SONOMA CREEK

CONSTRUCTION INFORMATION

Year Built : 1929 Skew (degrees): 14
Year Widened: N/A No. of Joints : 2
Length (m) : 51.8 No. of Hinges : 0

Structure Description: Approach Spans (Spans 1 and 3): CIP/RC deck on simple span RC T girders (4) on RC diaphragm abutments and RC column (2) bents with RC caps, all on spread footings.
Main Span (Span 2): CIP/RC deck on rolled steel floor beams on riveted steel pony truss on RC column (2) bents with RC caps, all on spread footings.

Span Configuration : 1 @ 11.6 m, 1 @ 31.4 m, 1 @ 8.8 m

LOAD CAPACITY AND RATINGS

Design Live Load: M-13.5 OR H-15
Inventory Rating: RF= 0.25 => 8.1 metric tons Calculation Method: ALLOWABLE STRESS
Operating Rating: RF= 0.54 => 17.5 metric tons Calculation Method: LOAD FACTOR
Permit Rating : XXXXX
Posting Load : Type 3: 17 U.S. Tons Type 3S2: 24 U.S. Tons Type 3-3: 24 U.S. Tons

DESCRIPTION ON STRUCTURE

Deck X-Section: 0.2 m br, 6.8 m, 0.2 m br
Total Width: 7.2 m Net Width: 6.8 m No. of Lanes: 2
Rail Description: TRUSS SPAN: double MBGR; Rail Code : 0000
APPR. SPANS: concrete rail and post.
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: Slightly meandering trapezoidal shaped channel. Cobbles are under the bridge only, fines in the main channel with dense vegetation on the banks. Moderate size scattered RSP on the embankment adjacent to Bent 2.

INSPECTION COMMENTARY

REVISIONS

NBI Items 16 & 17 (Latitude & Longitude) were revised on this date to more accurately reflect this structure's location.

INSPECTION ACCESS AND SCOPE

The channel had up to 2 feet of water under Span 2 on this date with Bent 2 at the water's edge. All substructure elements were visible for inspection through clear water.

INSPECTION COMMENTARY

CONDITION OF STRUCTURE

DECK AND RAILS

The AC approach pavement at Abutment 1 has several large pattern cracks that should be repaired.

There multiple spalls with exposed & rusted rebar along both edges of the deck in Span 2.

The right edge of deck and curb are spalled near Bent 2 under the new MBGR. The spall measures approximately 20" x 16" x 16" with exposed horizontal and longitudinal reinforcement. The deck surface is also spalling in this location. The deck spalling extends approximately 6 feet from the curb. Deck reinforcement is exposed and corroded in this area.

The pourable joint seal at Bent 3 is deteriorated and should be replaced.

The left and right concrete rails on both approach spans have multiple spalls with exposed and rusted reinforcement. A section of the RC bridge rail is also missing between the last 2 posts near the left side of Abutment 4.

SUPERSTRUCTURE & SUBSTRUCTURE

APPROACH SPAN 1

There is a fine to moderate size (up to 1 mm wide) horizontal crack in the Abutment 1 face. The crack extends over the entire width of the abutment under all the girders. No repair is necessary.

There is a shallow spall with exposed & rusted rebar in Girder 1, Span 1 near Bent 2. There is also incipient spalling along the exterior edge of the girder near midspan. The area is approximately 6 feet long. No repairs are necessary.

There is a 20" long incipient spall on the exterior edge of Girder 4 in Span 1 near Abutment 1 and also a 9 foot long incipient spall near Bent 2. No repair is necessary.

A previous inspection report (dated 5/5/2004) noted the following condition: "There is heavy cracking and crumbling of the concrete pedestal under Girder 1 at Pier 2. There are diagonal concrete fractures emanating from the girder to pedestal interface and extending to the bottom of the pedestal. These fractures have created large gaps through the concrete up to 1.5" wide with vertical reinforcement visible. The bottom 4" of the girder has heavy cracking and incipient spalls from the pedestal area to a length of 32" along the girder. The pedestal was sounded with a pick. The entire area is unsound. Concrete easily spalled away leaving a 12" x 12" x 2" spall with exposed and corroded horizontal and longitudinal reinforcement. The right pedestal under Girder 4 in Pier 2 exhibits the same physical defects to a worse extent." This location is difficult to inspect due to the height of the bent. A visual inspection was performed from the ground and by climbing over the rail during this inspection and it appeared that no significant changes have occurred since 2004. A similar condition exists at Bent 3. A concrete diaphragm was added (prior to the 2006 inspection) between the girders over both bents. This repair appears to be adequate in supplementing the girder bearing locations.

TRUSS SPAN 2

There are numerous incipient spalls and spalls with exposed & rusted rebar along the right and left edges of the soffit in Span 2. This condition exists over the full length of Span 2.

INSPECTION COMMENTARY

There is dirt and drift debris on the top of the bent caps and truss span bearing assemblies at Bents 2 and 3.

APPROACH SPAN 3

There is a 12" x 12" spall with exposed rusted rebar in the left soffit overhang in Span 3 near Bent 3. No repair is necessary.

There are multiple small incipient spalls throughout the full length of the right and left soffit overhangs in Span 3.

There are fine size, severe density pattern cracks with light efflorescence in the soffit of Bay 2 in Span 3. A few of the cracks have edge spalling. This area should be monitored closely during subsequent inspections.

There is incipient spalling on the exterior edge and face of Girder 1 in Span 3 near Bent 3 (possibly due to shallow concrete cover). The affected area is approximately 9 feet long. No repair is necessary.

There are a few minor spalls with exposed rusted rebar in the exterior edge of Girder 4 in Span 3 near Abutment 4. No repair is necessary.

There is incipient spalling (approximately 16" in diameter) on the Span 3 side of the Bent 3 cap under Girder 4. No repair is necessary.

There are a few fine size vertical and diagonal cracks in the caps at both bents.

Traffic volumes were too high on this date to safely take a new stream section of this scour critical bridge.

No significant scour was observed.

Since this structure is considered Scour Critical, the channel cross-section dated 1/11/2006 was spot-checked at Pier 2 (main channel pier) and no appreciable changes were noted.

PAINT CONDITION

There is moderated corrosion on the truss bearing assemblies at both bents.

The paint system on the steel truss elements has failed. There is moderate uniform rust and minor pitting throughout all the steel truss members. The top chord of the truss is in the worst condition. Pack rust is also visible at various locations throughout the truss.

SAFE LOAD CAPACITY

According to the 04/01/1980 load rating analysis performed on the RC girder spans and the 04/23/1980 load rating analysis performed on the truss span, the safe load capacity of the structure is:

- 17 tons - Type 3
- 24 tons - Type 3S2
- 24 tons - Type 3-3

The moment capacity of the RC girders in Span 1 controls the load capacity for the Type 3

INSPECTION COMMENTARY

vehicle and the capacity of the truss top chord and end posts in compression controls the load capacity for the Type 3S2 and Type 3-3 vehicles.

SIGNS

The following load limit signs are in place at both bridge approaches:

WEIGHT LIMIT
 17 TONS PER VEHICLE
 24 TONS PER SEMI-TRAILER COMBINATION
 24 TONS PER TRUCK AND FULL TRAILER

EXISTING POSTING

In accordance with County Ordinance No. 2653 dated 08/12/80, the following load restriction has been placed on this structure.

WEIGHT LIMIT
 17 TONS PER VEHICLE
 24 TONS PER SEMI-TRAILER COMBINATION
 24 TONS PER TRUCK AND FULL TRAILER

RECOMMENDED POSTING

It is recommended that the existing posting be retained.

<u>ELEMENT INSPECTION RATINGS</u>									
Elem	Total			Qty in each Condition State					
No.	Element Description	Env	Qty	Units	St. 1	St. 2	St. 3	St. 4	St. 5
13	Concrete Deck - Unprotected w/ AC Overlay	2	350	sq.m.	350	0	0	0	0
110	Reinforced Conc Open Girder/Beam	2	72	m.	65	5	0	2	0
121	Painted Steel Bottom Chord Thru Truss	2	64	m.	0	0	39	25	0
126	Painted Steel Thru Truss (excl. bottom chord)	2	64	m.	0	5	29	30	0
152	Painted Steel Floor Beam	2	109	m.	0	0	89	20	0
205	Reinforced Conc Column or Pile Extension	2	4	ea.	4	0	0	0	0
215	Reinforced Conc Abutment	2	17	m.	10	7	0	0	0
234	Reinforced Conc Cap	2	17	m.	14	0	3	0	0
256	Slope Protection	2	1	ea.	1	0	0	0	0
301	Pourable Joint Seal	2	7	m.	0	0	7	0	0
311	Moveable Bearing (roller, sliding, etc.)	2	2	ea.	0	2	0	0	0
313	Fixed Bearing	2	2	ea.	0	2	0	0	0
330	Metal Bridge Railing - coated or uncoated	2	63	m.	48	15	0	0	0
331	Reinforced Conc Bridge Railing	2	36	m.	23	0	13	0	0
349	Sliding Steel Plates	2	7	m.	7	0	0		

Elem No.	Element Description	Env	Total		Qty in each Condition State				
			Qty	Units	St. 1	St. 2	St. 3	St. 4	St. 5
357	Pack Rust	2	1	ea.	0	1	0	0	0
359	Soffit of Concrete Deck or Slab	2	1	ea.	0	0	1	0	0

WORK RECOMMENDATIONS

RecDate: 09/24/2011 EstCost: The AC approach pavement at Abutment 1
 Action : Appr. Roadway-Repair StrTarget: 2 YEARS has several large pattern cracks that
 Work By: LOCAL AGENCY DistTarget: should be repaired.
 Status : PROPOSED EA:

RecDate: 06/27/2007 EstCost: The pourable joint seal at Bent 3 is
 Action : Joints-Replace StrTarget: 2 YEARS deteriorated and should be replaced.
 Work By: LOCAL AGENCY DistTarget:
 Status : PROPOSED EA:


RecDate: 05/03/2006 EstCost: Clean and paint all the steel members in
 Action : Paint-Full Prep StrTarget: 2 YEARS the truss span (Span 2).
 Work By: LOCAL AGENCY DistTarget:
 Status : PROPOSED EA:

RecDate: 04/10/2002 EstCost: Clean debris from all bearing areas.
 Action : Bearings-Clean StrTarget: 2 YEARS
 Work By: LOCAL AGENCY DistTarget:
 Status : PROPOSED EA:

RecDate: 04/10/2002 EstCost: Remove unsound concrete in right edge of
 Action : Deck-Patch spalls StrTarget: 2 YEARS deck and curb near Pier 2. Repair spall.
 Work By: LOCAL AGENCY DistTarget:
 Status : PROPOSED EA:

RecDate: 04/10/2002 EstCost: Chip out AC in area over Pier 3 left edge
 Action : Deck-Patch spalls StrTarget: 2 YEARS of deck and remove unsound concrete.
 Work By: LOCAL AGENCY DistTarget: Repair spall.
 Status : PROPOSED EA:

Inspected By : JE.Edwards/DR.Stauts

 7/3/12
 Jason E. Edwards (Registered Civil Engineer)



STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 20C0017
 (5) INVENTORY ROUTE(ON/UNDER)- ON 1400G2900
 (2) HIGHWAY AGENCY DISTRICT 04
 (3) COUNTY CODE 097 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED- SONOMA CREEK
 (7) FACILITY CARRIED- WATMAUGH ROAD
 (9) LOCATION- 0.3 MI WEST OF SR 12
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK- NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 38 DEG 15 MIN 56.43 SEC
 (17) LONGITUDE 122 DEG 28 MIN 03.48 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN:MATERIAL- STEEL
 TYPE- TRUSS - THRU CODE 310
 (44) STRUCTURE TYPE APPR:MATERIAL- CONCRETE
 TYPE- TEE BEAM CODE 104
 (45) NUMBER OF SPANS IN MAIN UNIT 1
 (46) NUMBER OF APPROACH SPANS 2
 (107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE- BITUMINOUS CODE 6
 B) TYPE OF MEMBRANE- NONE CODE 0
 C) TYPE OF DECK PROTECTION- NONE CODE 0

***** AGE AND SERVICE *****

(27) YEAR BUILT 1929
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON- HIGHWAY 1
 UNDER- WATERWAY 5
 (28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 00
 (29) AVERAGE DAILY TRAFFIC 3400
 (30) YEAR OF ADT 2008 (109) TRUCK ADT 1 %
 (19) BYPASS, DETOUR LENGTH 8 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 31.4 M
 (49) STRUCTURE LENGTH 51.8 M
 (50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 6.8 M
 (52) DECK WIDTH OUT TO OUT 7.2 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 5.8 M
 (33) BRIDGE MEDIAN- NO MEDIAN 0
 (34) SKEW 14 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 6.8 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF- NOT H/RR 0.00 M
 (55) MIN LAT UNDERCLEAR RT REF- NOT H/RR 0.0 M
 (56) MIN LAT UNDERCLEAR LT 0.0 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL- NO CONTROL CODE 0
 (111) PIER PROTECTION- CODE
 (39) NAVIGATION VERTICAL CLEARANCE 0.0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

***** SUFFICIENCY RATING *****

SUFFICIENCY RATING = 4.0
 STATUS STRUCTURALLY DEFICIENT
 HEALTH INDEX 59.7
 PAINT CONDITION INDEX = 42.7

***** CLASSIFICATION ***** CODE

(112) NBIS BRIDGE LENGTH- YES Y
 (104) HIGHWAY SYSTEM- NOT ON NHS 0
 (26) FUNCTIONAL CLASS- COLLECTOR URBAN 17
 (100) DEFENSE HIGHWAY- NOT STRAHNET 0
 (101) PARALLEL STRUCTURE- NONE EXISTS N
 (102) DIRECTION OF TRAFFIC- 2 WAY 2
 (103) TEMPORARY STRUCTURE-
 (105) FED.LANDS HWY- NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0
 (20) TOLL- ON FREE ROAD 3
 (21) MAINTAIN- COUNTY HIGHWAY AGENCY 02
 (22) OWNER- COUNTY HIGHWAY AGENCY 02
 (37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

***** CONDITION ***** CODE

(58) DECK 5
 (59) SUPERSTRUCTURE 4
 (60) SUBSTRUCTURE 6
 (61) CHANNEL & CHANNEL PROTECTION 6
 (62) CULVERTS N

***** LOAD RATING AND POSTING ***** CODE

(31) DESIGN LOAD- M-13.5 OR H-15 2
 (63) OPERATING RATING METHOD- LOAD FACTOR 1
 (64) OPERATING RATING- 17.5
 (65) INVENTORY RATING METHOD- ALLOWABLE STRESS 2
 (66) INVENTORY RATING- 8.1
 (70) BRIDGE POSTING- 30.0 - 39.9% BELOW 1
 (41) STRUCTURE OPEN, POSTED OR CLOSED- P
 DESCRIPTION- POSTED FOR LOAD

***** APPRAISAL ***** CODE

(67) STRUCTURAL EVALUATION 2
 (68) DECK GEOMETRY 2
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 6
 (72) APPROACH ROADWAY ALIGNMENT 4
 (36) TRAFFIC SAFETY FEATURES 0000
 (113) SCOUR CRITICAL BRIDGES 3

***** PROPOSED IMPROVEMENTS *****

(75) TYPE OF WORK- REPLACE FOR DEFICIENCY CODE 31
 (76) LENGTH OF STRUCTURE IMPROVEMENT 51.8 M
 (94) BRIDGE IMPROVEMENT COST \$834,900
 (95) ROADWAY IMPROVEMENT COST \$166,980
 (96) TOTAL PROJECT COST \$1,402,632
 (97) YEAR OF IMPROVEMENT COST ESTIMATE 2010
 (114) FUTURE ADT 2095
 (115) YEAR OF FUTURE ADT 2029

***** INSPECTIONS *****

(90) INSPECTION DATE 04/12 (91) FREQUENCY 12 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL- YES 24 MO A) 10/10
 B) UNDERWATER INSP- NO MO B)
 C) OTHER SPECIAL INSP- NO MO C)

DEPARTMENT OF TRANSPORTATION

ENGINEERING SERVICE CENTER, MS #9-Hyd
Division of Structure Maintenance and Investigations
P.O. BOX 942874
SACRAMENTO, CA 94274-0001

COPY

FAX (916) 227-8031
TDD (916) 654-4014
(916) 227-8303

February 29, 2000

Mr. Glen Wallis, Bridge Engineer
County of Sonoma
Department of Public Works
575 Administration Drive, Room 117-A
Santa Rosa, CA 95401

Dear Mr. Wallis

Bridge Number 20C-0017, 04-Son-Watmaugh Road, Watmaugh Rd. Bridge over Sonoma Creek, has been reviewed for the Scour Critical Bridge Program. **This bridge was calculated to be scour critical for current conditions.** Although there are no reports of scour or related problems in our Supplementary Bridge Reports, this bridge has suffered severe degradation. During the 8/20/99 field inspection conducted by this office, the "cold-joint" at Pier 2 was observed to be roughly 1.2 to 1.5 m (4 to 5 ft) above the channel. If the ground elevation was at or above this transition point after construction, then the channel has degraded at least 1.2 m (4 ft) since construction. Currently, there is insufficient ground cover at this pier for calculated scour.

Seismic Retrofit plans (100% Submittal) received on 9/26/97 at the Office of Structure External Liaison and Support indicate retrofit at the pier caps and the Pier 2 footing. According to these plans, the footing width will be increased from 2.3 m (7.5 ft) to 3 m (10 ft). This increase in footing width is expected to increase the depth of scour. For the present channel elevation at Pier 2, calculated scour elevations fall well below the bottom of footing. Since the retrofitted pier remains similar to the existing pier, this bridge will most likely remain scour critical after retrofit is completed. Actions should be taken to address the channel degradation at this site. The proposed retrofit strategy should be reviewed for hydraulic impact.

Questions or clarifications should be directed to Thanh Vuong at 916-227-8920 or Vindy Kwok at 916-227-9859.

STEVE JAQUES, Branch Chief
Hydrology and Hydraulics Office

c: Thanh Vuong, Vindy Kwok

COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
2300 COUNTY CENTER DRIVE, SUITE B 100
SANTA ROSA, CALIFORNIA 95403

Phillip M. Demery, Director



AREA CODE (707)

ROADS 565-2231
TRANSIT 585-7516
REFUSE 565-7940
AIRPORT 565-7243
AIR POLLUTION..... 433-5911
FAX 565-2620
www.sonoma-county.org/tpw

April 23, 2012

Sonoma County Permits and Resources Department
Attention: Lisa Posternak

Subject: Watmaugh Road Bridge Replacement
Technical Memorandum – Funding Sources

Dear Lisa,

Below is the technical information on fund sources for the three alternative projects for Watmaugh Road Bridge Replacement Project.

Replace Bridge in Existing Location

Replacing the existing bridge with a new bridge at the same location as the existing bridge requires the removal of the existing bridge. The Sonoma County Transportation and Public Works Department proposes to preserve the trusses from the existing bridge and attach them to the new two span concrete box girder bridge. Funding for design and construction of the two span concrete box girder bridge has been approved by Caltrans. Funding consist of 80% federal funds reimbursement on design engineering and 88.53% federal funding for right of way and construction. Currently this project is eligible for Proposition 1B Seismic Funds to pay the local matching funds for the right of way and construction phases of the project. Another source of federal funds called Toll Credit Funding may also be available to pay the County's required local matching funds at the time the right of way phase and construction phase of the project starts. The County's local matching funds share of the project will be 20% of the design cost plus any ineligible cost to preserve the trusses and install them on the new bridge.

Replace Bridge in Alternate Location Downstream (and Leave Existing Bridge)

Replacing the existing bridge with a new bridge at a downstream location will allow the existing bridge to remain in place and have minor repairs. The Sonoma County Transportation and Public Works Department proposes to convert the existing bridge into pedestrian-bicycle bridge. Federal funding to make repairs to the existing bridge may be applied for up to the cost of demolition of the bridge. Funding for design and construction of the two span concrete box girder bridge has been approved by Caltrans. Funding consist of 80% federal funds reimbursement on design engineering and 88.53% federal funding for right of way and construction. Currently this project is eligible for Proposition 1B Seismic Funds to pay the local matching funds for the right of way and construction phases of the project. Another source of federal funds called Toll Credit Funding may also be available to pay the County's required local matching funds at the time the right of way phase and construction phase of the project starts. The County's local matching funds share of the project will be 20% of the design cost plus any

ineligible cost to preserve the existing bridge.

Seismic Retrofit Existing Bridge

Retrofitting the existing bridge with strengthened abutments, piers and trusses and replacing the end spans and center span deck will be necessary to meet most of the minimum requirements for seismic, scour and load capacity. Meeting all standards will require deck widening and additional strengthening of the rest of the bridge. Federal funding to perform the upgrades would have to be applied for and would be subject to a cost effectiveness comparison before funding would be approved. The retrofit costs and the future costs of maintaining the bridge would be compared to building and maintaining a new concrete bridge. Funding for design and construction if approved by Caltrans would consist of 80% federal funds reimbursement on design engineering and 88.53% federal funding for right of way and construction. The County would also have to apply to Caltrans for eligibility for Proposition 1B Seismic Funds to pay the local matching funds for the right of way and construction phases of the project. Another source of federal funds called Toll Credit Funding may also be available to pay the County's required local matching funds at the time the right of way phase and construction phase of the project starts. The County's cost share for the rehabilitation project could potentially be 100% if Caltrans does not approve federal and Prop 1B funding. In addition the County may be required to pay back federal funds used to start the design process now in progress.

Sincerely,

Levi Gurule
Senior Engineer
Sonoma County Department of Transportation and Public Works

APPENDIX F CULTURAL REPORTS

- F1 - *Historic Property Survey Report (HPSR)*
Tom Origer & Associates, January 22, 2001
- F2- *DPR 523 Forms*
Tom Origer & Associates, updated 2012
- F3- *Cultural Resources Analysis of Proposed Alternatives to the Watmaugh Road Bridge Replacement Project*
Tom Origer & Associates, 2012

HISTORIC PROPERTY SURVEY REPORT

For the Watmaugh Road at Sonoma Creek
Bridge Seismic Retrofit Project
Sonoma County, California

04-SON-0-CR
P.M. 11.83 – 11.91
(Bridge #20C-0017)

Vicki R. Beard, M.A.

Tom Origer & Associates
P.O. Box 1531
Rohnert Park, California, 94927

Prepared for:

Paula Stamp
Sonoma County
Permit and Resources Management Department
2550 Ventura Avenue
Santa Rosa, California 95403

January 22, 2001

HISTORIC PROPERTY SURVEY REPORT

For the Watmaugh Road at Sonoma Creek
Bridge Seismic Retrofit Project
Sonoma County, California

04-SON-0-CR
P.M. 11.83 to 11.91
(Bridge #20C-0017)

Prepared by:

Date:

Vicki R. Beard, M.A. _____

CONTENTS

SUMMARY OF FINDINGS	1
PROJECT DESCRIPTION	1
RESUME OF SURVEY	1
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EXHIBITS

- Figure 1. Project vicinity map.
- Figure 2. Project location.
- Figure 3. Archaeological area of potential effects
- Figure 4. Architectural area of potential effects
- Figure 5. Channel cross section showing retrofit locations
- Figure 6. Retrofit details

APPENDICES

- A. Structures Maintenance System – HSALL, Historical Significance – Local Bridges
- B. Public Participation Correspondence

ATTACHMENTS

- A. Negative Archaeological Survey Report
- B. Historic Architectural Survey Report
- C. Bridge Evaluation Report

SUMMARY OF FINDINGS

A cultural resources study and bridge evaluation was conducted for the County of Sonoma for the Watmaugh Road at Sonoma Creek bridge seismic retrofit project, Sonoma County, California. The project location is approximately two miles south of the city of Sonoma, in southeastern Sonoma County, California (Figures 1 and 2). Archaeological survey found no prehistoric or historic archaeological sites within the project's archaeological APE (Figure 3). Within the historic architectural APE (Figure 4), there are three building complexes with buildings constructed more than 50 years ago. The two parcels on the north side of Watmaugh Road contain historic properties identified during the Valley of the Moon historic resources survey (Sonoma League for Historic Preservation 1979) as potentially eligible for listing on the National Register of Historic Places (National Register). In addition, the bridge carrying Watmaugh Road over Sonoma Creek, constructed in 1929, is a locally recognized historical resource which carries a historic district (HD) zoning designation. The bridge is listed on the State Office of Historic Preservation's Historic Property Directory (HPD) with an evaluation code of "4S" (may become eligible for the National Register as a separate property). The *Caltrans Local Bridge Survey* (see Appendix A) gave this bridge significance rating of 5 (appears to not meet the National register criteria for listing). This study found no National Register eligible properties within the APE and concurrence is sought from the OHP on a finding of no historic properties affected.

PROJECT DESCRIPTION

The project consists of the seismic retrofit of the existing bridge, and includes the following elements (see Figures 5 and 6):

1. Pier cap retrofit: The existing concrete pier caps will be widened by approximately two feet on each side and about one foot on each end.
2. Column rehabilitation: A joint in the concrete on pier 2 will be repaired by forming and pouring additional concrete around the joint.
3. Footing retrofit: The footings on pier 2 will be enlarged.
4. Truss member retrofit: Additional plates will be installed to some of the truss members at all four corners of the bridge.
5. Deck to floor beam connections: Holes for bolts will be drilled at multiple locations on the bridge to connect the deck more firmly to the under structure.

To facilitate this work, a temporary road will be built southeast of the bridge, and a sediment stilling basin will be constructed in the gravel bar on the northeast side of the bridge.

The archaeological APE includes all of the areas that will be disturbed by construction. They include: the bridge itself and an area extending 25 feet in either direction along Watmaugh Road; the road right-of-way; the route of the proposed access road; the sediment stilling basin, and the area from creek bank to creek bank for a distance of 100 feet upstream and 200 feet downstream of the bridge. With regard to possible historical architecture, the project's APE was determined to be the four parcels abutting the project location.

RESUME OF SURVEY

Historical research was undertaken at the Northwest Information Center (NWIC), Sonoma State University; the offices of Tom Origer & Associates; Caltrans Headquarters and District 4 offices; the Sonoma County Library History Annex; the Sonoma County Recorder's Office; the Sonoma County Assessor's Office; and the library of the Sonoma League for Historic Preservation. The following resources were consulted:

OHP Historic Property Directory updated through:	10/98
National Register of Historic Places and updates to:	10/98
OHP Database of Determinations of Eligibility and updates to:	10/98
California Register of Historical Resources and updates to:	10/98
California Historical Landmarks (State of California 1990) and updates to:	10/98
California Inventory of Historic Resources (DPR 1976)	1976
Caltrans Historic Highway Bridge Inventory	1987
Archaeological Site Records filed through:	12/98
County and local listing of historical resources	2/99

Field inspection of the project area occurred on February 23, 1999, at which time the entire archaeological APE was examined intensively for the presence of archaeological deposits. The bridge and buildings within the architectural APE were also examined and photo-documented at that time.

PUBLIC PARTICIPATION

Public participation was sought through communication with local historical societies and Native American organizations, and through an open letter to the members of the Sonoma County. Appendix B provides copies of all correspondence. Historical Society printed in their journal. Letters were sent to the following organizations and individuals:

Native American Heritage Commission
 Gene Buvelot, Federated Coast Miwok
 Tim Campbell, Federated Coast Miwok
 Grant Smith, Coast Miwok, Pomo
 Kathleen Smith, Federated Coast Miwok
 Ya-Ka-Ama
 Sonoma County Landmarks Commission

Sonoma County Historical Society
Sonoma League for Historic Preservation
Sonoma Depot Museum

No response was received from any of those listed above with the exception of the Native American Heritage Commission (NAHC). The NAHC has no record of sacred lands in or near the APE. Follow-up telephone calls were made to members of the Native American Community and no specific cultural sites or other resources were known in the area.

RESOURCES IDENTIFIED

Archaeology

No prehistoric or historic archaeological resources were found within the project's APE.

No further archaeological survey work should be necessary unless project plans change to include unsurveyed areas. If buried cultural materials are unearthed during construction, Caltrans policy states that work must be halted in the vicinity of the find until a qualified archaeologist can assess its significance. If human remains are unearthed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. In either instance, the District 4 Environmental Planning Branch shall be immediately notified (Environmental Handbook §1-2.2 and 7-8).

Buildings and Structures

The Watmaugh Bridge is a three-span, Warren polygonal pony truss bridge designed by Sonoma County Surveyor, E.A. Peugh in 1929, and is one of nineteen truss bridges remaining in the county. The bridge was locally recognized as a historical resource in 1981 when it was given the historic district (HD) zoning designation. In the *Caltrans Local Bridge Survey* (1987), it is listed as a category "5" bridge.

Watmaugh Bridge is associated with Sonoma County's Highway Improvement Plan of 1919. It is situated in its original location on Sonoma Creek and the setting has remained rural. The design of the bridge is unchanged and the only apparent alteration is a change in the type of guardrail: the original steel lattice rails were replaced by steel beams. Otherwise, the bridge has good integrity of materials and workmanship. This study found that the Watmaugh Road Bridge does not meet the criteria for inclusion on the National Register.

Three building complexes were found to be within the project's architectural APE. Historical research was undertaken to determine when the buildings were constructed and with whom they were associated historically; none were found eligible for inclusion on the National Register. The *Valley of the Moon Historic Resources Survey*, prepared by the Sonoma League for Historic Preservation (1979), lists two buildings that are within the project's APE. The

house at 240 W. Watmaugh Road and the house at 300 W. Watmaugh Road are shown as category "4" properties indicating that further research and evaluation were necessary

Research found that the house and barn at 240 W. Watmaugh Road were built by William McElroy in about 1894. The house is in excellent physical condition and the outbuildings are in generally good condition. Substantial alterations have been made to the prominent, two-tiered porch. In addition, some of the original ranch buildings have been demolished and replaced by buildings that are more modern. This complex does not meet eligibility criteria for inclusion on the National Register.

The house at 300 W. Watmaugh Road is a turn-of-the-century cottage built to house Southern Pacific Railroad employees. It was moved from Schellville to its current location early in this century, and a gabled wing was attached at the rear. It lacks sufficient integrity of setting, feeling, and architectural design to meet the eligibility criteria for inclusion on the National Register.

The third building complex is situated at 201 W. Watmaugh Road and is comprised of a two-story Colonial Revival house built in 1941, a barn/workshop, and a small apartment. It is a relatively simple and late example of the Colonial Revival style and does not meet the criteria for inclusion on the National Register.

**None of the following properties which
pre-date 1945 meet the criteria for eligibility:**

<u>Address</u>	<u>Map ID#</u>
Bridge 20C-0017	NA
201 W. Watmaugh Road	128-401-19
240 W. Watmaugh Road	128-341-27
300 W. Watmaugh Road	128-301-15

BIBLIOGRAPHY

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California Department of Transportation (Caltrans)

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Collier, M. and S. Thalman (Editors)

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- 1868 *Plat of the Rancho Aqua Caliente*. Department of the Interior, Washington, D.C.

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Hoover, M., H. Rensch, E. Rensch, and W. Abeloe

- 1966 *Historic Spots in California*. 3rd ed. Stanford University Press, Stanford.

Kelly, I.

- 1978 Coast Miwok. In *California*, edited by R. Heizer, pp.415-425. Handbook of North American Indians, Vol. 8, W. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

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Reynolds, W. and T. Proctor

1898 *Illustrated Atlas of Sonoma County, California*. Reynolds and Proctor, Santa Rosa.

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Sonoma County Planning Department

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1915 *Sonoma, California*. 15 minute map. Department of the Interior, Washington, D.C.

1942 *Sonoma, California*. 15 minute tactical map. War Department, Washington, D.C.

United States Geological Survey (USGS)

1902 *Napa, California*. 30 minute map. Geological Survey, Washington, D.C.

1951 *Sonoma, California*. 15 minute map, photorevised 1980. Geological Survey, Reston, Virginia.



Figure 1. Project vicinity map (adapted from the Santa Rosa 1:250,000-scale map [USGS 1970]).

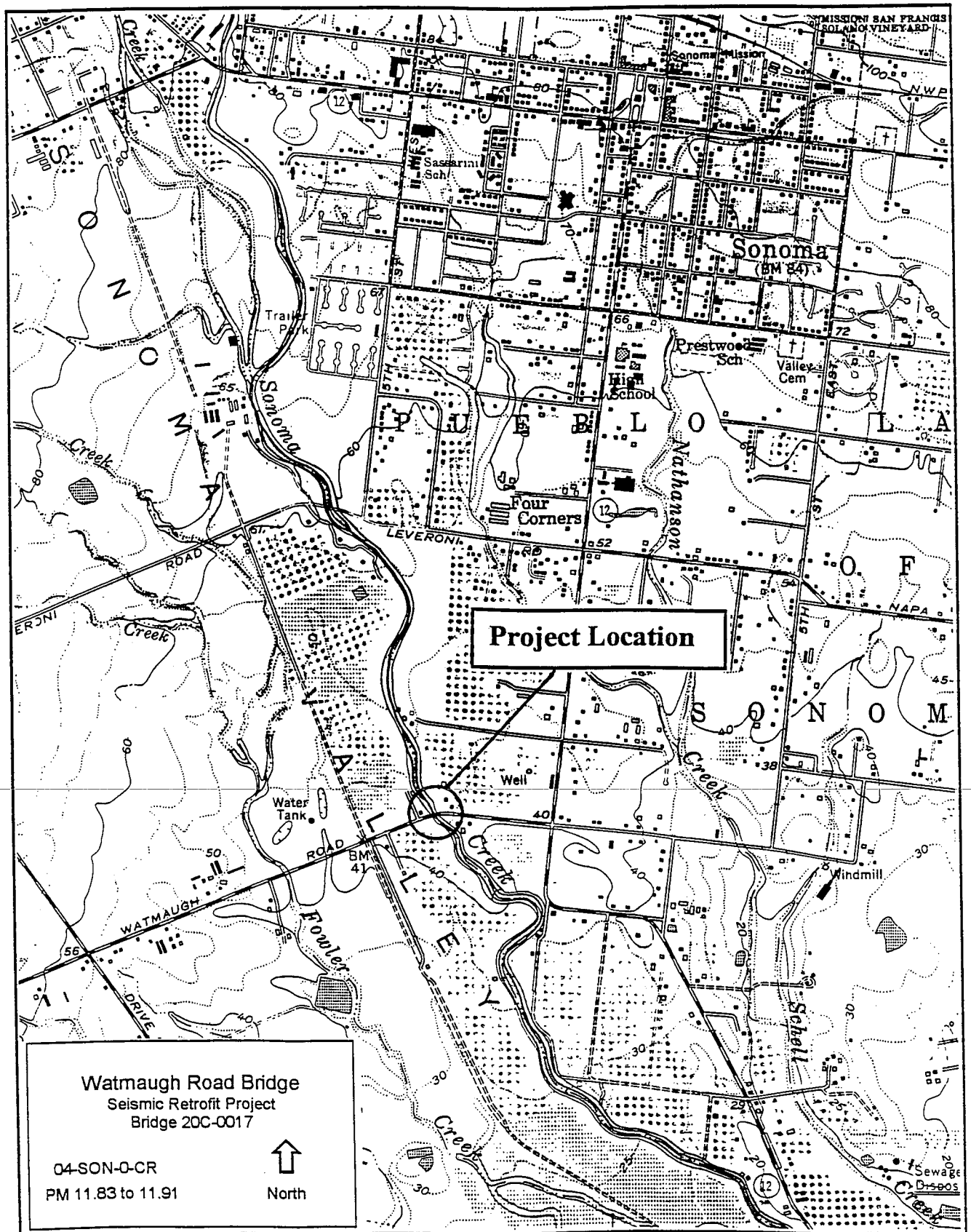


Figure 2. Project location (adapted from the *Sonoma, California* 7.5 minute series map [USGS 1951 photorevised 1980]).



Approved by: FHWA Transportation Engr.

Figure 3. Archaeological Area of Potential Effects.

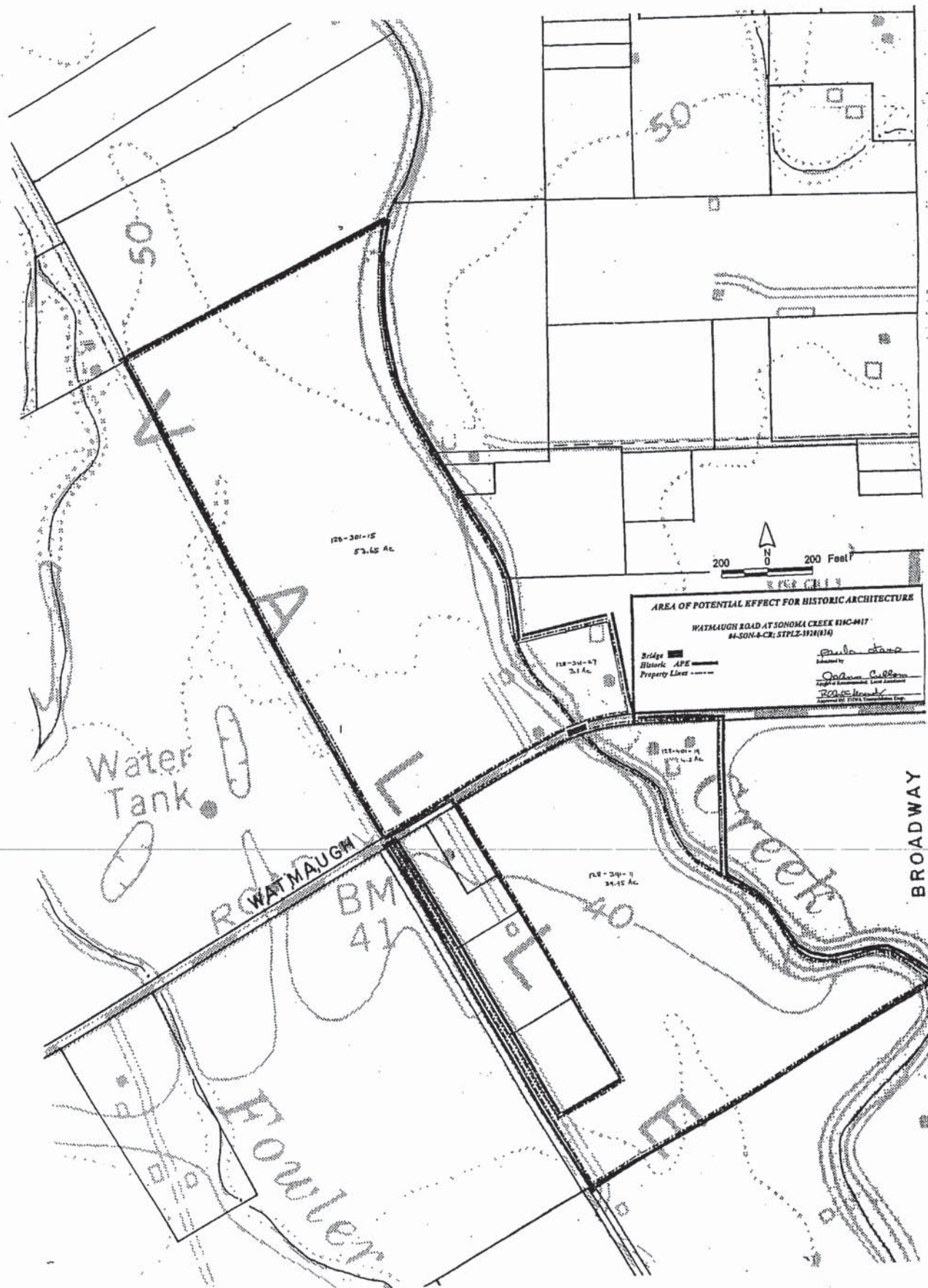


Figure 3. Area of Potential Effects.

APPENDIX B:

Public Participation Correspondence

Tom Origer & Associates

Archaeology / Historical Research

December 14, 1998

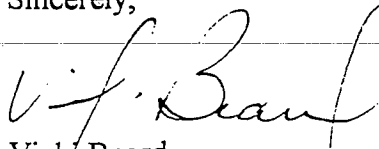
Debbie Treadway
Native American Heritage Commission
915 Capitol Mall
Sacramento, CA 95814

Dear Ms. Treadway:

Our firm is completing cultural resources studies for two Northern California projects for which we are requesting information from the Native American Heritage Commission regarding sacred lands and other cultural sites. The first project is in Napa County near Napa Junction. The second project is a bridge retrofit project in Sonoma County that includes 14 bridges in the county. Enclosed are location maps for each of the bridges and for the Napa County parcel. Would you please check your file and provide a list of individuals whom you feel it would be appropriate for us to contact regarding these projects.

If you have any questions or comments, please contact me at (707) 792-2797. Thank you for your assistance.

Sincerely,



Vicki Beard
Senior Associate

Enclosures

JAN-15-99 FRI 02:52 PM NAHC

FAX NO. 9166575390

P.01

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
3 CAPITOL MALL, ROOM 304
ACQUINATO, CA 95814
(916) 443-4002



January 15, 1999

(707)
192-2798
20 Page

REPLY SENT VIA FAX

Tom Origer & Associates
P. O. Box 1531
Rohnert Park, CA 94927

RE: Bridge retrofit in Sonoma County

Dear Mr. Origer:

A record search of the Sacred Lands File has failed to indicate the presence of Native American cultural resources in the immediate project area of the above referenced projects. The absence of specific site information in the sacred land file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

I have enclosed a list of Native American individuals/organizations who may be able to assist you regarding cultural resources on the sites you identified. The Commission makes no recommendation or preference of a single individual, or group over another. I suggest that all of those indicated are contacted, if they are unable to supply information regarding your project they may recommend others with specific knowledge of the area.

If you receive a change of address or phone number from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information.

If you have any questions or need additional information, please contact me at (916) 653-4040

Sincerely,

Gail McNulty
Associate Program Analyst

Tom Origer & Associates

Archaeology / Historical Research

January 18, 1999

Gene Buvelot
1025 Susan Way
Novato, CA 94947

Dear Mr. Buvelot:

Our firm is conducting a cultural resources study for Sonoma County as part of a seismic retrofit project for 14 county bridges. We are seeking information regarding sacred sites and other cultural-use sites such as gathering areas that might be impacted during the retrofit project. Listed below are the bridges slated for seismic retrofitting.

<u>Bridge No.</u>	<u>Location</u>	<u>Bridge No.</u>	<u>Location</u>
20C-0240	Hauser Bridge Rd at S. Fork Gualala River	20C-0018	Bohemian Hwy at Russian River
20C-0052	Guerneville Rd at Laguna de Santa Rosa	20C-0016	Moscow Road at Russian River
20C-0017	Watmaugh Rd at Sonoma Creek	20C-0155	Wohler Road at Russian River
20C-0262	Boyes Boulevard at Sonoma Creek	20C-0002	Crocker Road at Russian River
20C-0151	Stewarts Point Road at Dry Creek	20C-0141	Annapolis Rd at Wheatfield Fork Gualala River
20C-0391	Freezeout Road at Freezeout Creek	20C-0005	Geysers Rd at Big Sulphur Creek
20C-0144	Stewarts Point Road at House Creek	20C-0438	Rockpile Road at Lake Sonoma

A map showing the locations of these bridges is enclosed for reference. As you can see, the bridges are scattered across the county. If you have any comments or concerns about any of the bridge projects, or have information you feel is useful for our study, please contact us at the address or telephone number above. Your assistance is greatly appreciated. Similar requests for information were also sent to: Tim Campbell, Gregg Cordova, Marc Couey, Calvin H. Smith, Sr., Grant Smith, Kathleen Smith, Jeffery Wilson, the Lytton Indian Community of California, and Ya-Ka-Ama.

Please feel free to contact us at (707) 792-2797 if you have any questions or need additional information. Thank you for your time.

Sincerely,



Vicki Beard
Senior Associate

Tom Origer & Associates

Archaeology / Historical Research

January 18, 1999

Tim Campbell
76 Wakefield Avenue
Daly City, CA 94015

Dear Tim:

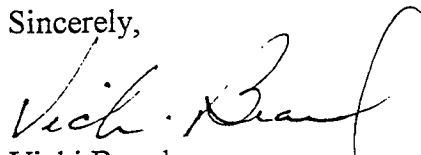
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Please feel free to contact us at (707) 792-2797 if you have any questions or need additional information. Thank you for your time.

Sincerely,



Vicki Beard
Senior Associate

Tom Origer & Associates

Archaeology / Historical Research

January 18, 1999

Grant Smith
4309 Chico Ave.
Santa Rosa, CA 95401

Dear Grant:

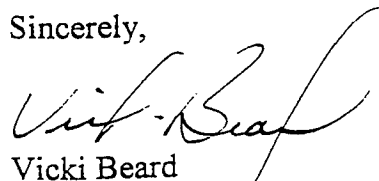
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A map showing the locations of these bridges is enclosed for reference. As you can see, the bridges are scattered across the county. If you have any comments or concerns about any of the bridge projects, or have information you feel is useful for our study, please contact us at the address or telephone number above. Your assistance is greatly appreciated. Similar requests for information were also sent to: Gene Buvelot, Tim Campbell, Gregg Cordova, Marc Couey, Calvin H. Smith, Sr., Kathleen Smith, Jeffery Wilson, the Lytton Indian Community of California, and Ya-Ka-Ama.

Please feel free to contact us at (707) 792-2797 if you have any questions or need additional information. Thank you for your time.

Sincerely,



Vicki Beard
Senior Associate

Tom Origer & Associates

Archaeology / Historical Research

January 18, 1999

Kathleen Smith
1728 Sunnyvale Avenue
Walnut Creek, CA 94596

Dear Ms. Smith:

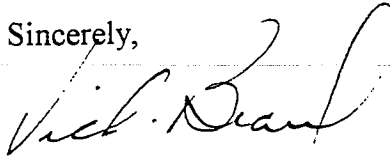
Our firm is conducting a cultural resources study for Sonoma County as part of a seismic retrofit project for 14 county bridges. We are seeking information regarding sacred sites and other cultural-use sites such as gathering areas that might be impacted during the retrofit project. Listed below are the bridges slated for seismic retrofitting.

<u>Bridge No.</u>	<u>Location</u>	<u>Bridge No.</u>	<u>Location</u>
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A map showing the locations of these bridges is enclosed for reference. As you can see, the bridges are scattered across the county. If you have any comments or concerns about any of the bridge projects, or have information you feel is useful for our study, please contact us at the address or telephone number above. Your assistance is greatly appreciated. Similar requests for information were also sent to: Gene Buvelot, Tim Campbell, Gregg Cordova, Marc Couey, Calvin H. Smith, Sr., Grant Smith, Jeffery Wilson, the Lytton Indian Community of California, and Ya-Ka-Ama.

Please feel free to contact us at (707) 792-2797 if you have any questions or need additional information. Thank you for your time.

Sincerely,



Vicki Beard
Senior Associate

Tom Origer & Associates

Archaeology / Historical Research

January 18, 1999

Ya-Ka-Ama
6215 Eastside Road
Forestville, CA 95436

Dear Sir or Madam:

Our firm is conducting a cultural resources study for Sonoma County as part of a seismic retrofit project for 14 county bridges. We are seeking information regarding sacred sites and other cultural-use sites such as gathering areas that might be impacted during the retrofit project. Listed below are the bridges slated for seismic retrofitting.

<u>Bridge No.</u>	<u>Location</u>	<u>Bridge No.</u>	<u>Location</u>
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A map showing the locations of these bridges is enclosed for reference. As you can see, the bridges are scattered across the county. If you have any comments or concerns about any of the bridge projects, or have information you feel is useful for our study, please contact us at the address or telephone number above. Your assistance is greatly appreciated. Similar requests for information were also sent to: Gene Buvelot, Tim Campbell, Gregg Cordova, Marc Couey, Calvin H. Smith, Sr., Grant Smith, Kathleen Smith, Jeffery Wilson, and the Lytton Indian Community of California.

Please feel free to contact us at (707) 792-2797 if you have any questions or need additional information. Thank you for your time.

Sincerely,



Vicki Beard
Senior Associate

Tom Origer & Associates

Archaeology / Historical Research

January 12, 1999

Sonoma County Landmarks Commission
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Commission Members:

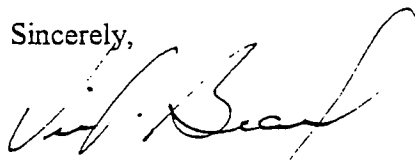
Our firm is preparing cultural resources studies for fourteen Sonoma County bridge seismic retrofit projects and we are seeking information about the bridges listed below. Some of these bridges contribute to the Sonoma County Antique Bridges District.

Bridge Number	Location
20C-0240	Hauser Bridge Road at South Fork Gualala River
20C-0052	Guerneville Road at Laguna de Santa Rosa
20C-0017	Watmaugh Road at Sonoma Creek
20C-0262	Boyes Boulevard at Sonoma Creek
20C-0151	Stewarts Point Road at Dry Creek
20C-0391	Freezeout Road at Freezeout Creek
20C-0144	Stewarts Point Road at House Creek
20C-0018	Bohemian Highway at Russian River
20C-0016	Moscow Road at Russian River
20C-0155	Wohler Road at Russian River
20C-0002	Crocker Road at Russian River
20C-0141	Annapolis Road at Wheatfield Fork, Gualala River
20C-0005	Cloverdale Geysers Road at Big Sulphur Creek
20C-0438	Rockpile Road at Lake Sonoma

If possible, we would like to review documentation for the thematic district. Please let us know how to obtain a copy of or access to this information. Your assistance is greatly appreciated, as are your comments regarding the seismic retrofit project, in general, or concerning a specific bridge.

Please contact me at (707) 792-2797 if you have any questions or need additional information. Thank you for your time.

Sincerely,



Vicki Beard
Senior Associate

Tom Origer & Associates

Archaeology / Historical Research

January 13, 1999

Sonoma County Historical Society
P.O. Box 1373
Santa Rosa, CA 95402

Dear Historical Society Folks:

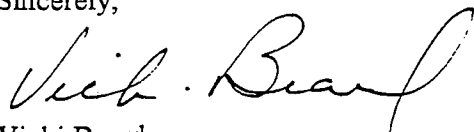
Our firm is preparing cultural resources studies for fourteen Sonoma County bridge seismic retrofit projects and we are seeking information about the bridges listed below. Some of these bridges contribute to the Sonoma County Antique Bridges District.

<u>Bridge Number</u>	<u>Location</u>
20C-0240	Hauser Bridge Road at South Fork Gualala River
20C-0052	Guerneville Road at Laguna de Santa Rosa
20C-0017	Watmaugh Road at Sonoma Creek
20C-0262	Boyes Boulevard at Sonoma Creek
20C-0151	Stewarts Point Road at Dry Creek
20C-0391	Freezeout Road at Freezeout Creek
20C-0144	Stewarts Point Road at House Creek
20C-0018	Bohemian Highway at Russian River
20C-0016	Moscow Road at Russian River
20C-0155	Wohler Road at Russian River
20C-0002	Crocker Road at Russian River
20C-0141	Annapolis Road at Wheatfield Fork, Gualala River
20C-0005	Cloverdale Geysers Road at Big Sulphur Creek
20C-0438	Rockpile Road at Lake Sonoma

For reference, maps showing the locations of these bridges are enclosed. If you have any comments or concerns about any of the bridge projects, or have information you feel is useful for our study, please contact us at the address or telephone number above. Your assistance is greatly appreciated, as are your comments regarding the seismic retrofit project, in general, or concerning a specific bridge.

Please feel free to contact us at (707) 792-2797 if you have any questions or need additional information. Thank you for your time.

Sincerely,



Vicki Beard
Senior Associate

Enclosures (2)

Tom Origer & Associates

Archaeology / Historical Research

January 13, 1999

Sonoma League for Historic Preservation
P.O. Box 766
Sonoma, CA 95476

Dear League Members:

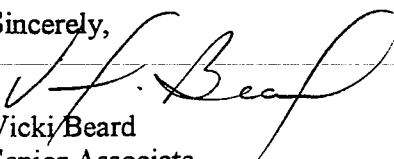
Our firm is preparing cultural resources studies for fourteen Sonoma County bridge seismic retrofit projects, and we are seeking information and comments regarding the bridges and the retrofit projects. Two of the bridges are in your area:

20C-0262 Boyes Blvd at Sonoma Creek
20C-0017 Watmaugh Rd at Sonoma Creek

For reference, a map showing the locations of these bridges is enclosed. If you have any comments or concerns about any of the bridge projects, or have information you feel is useful for our study, please contact us at the address or telephone number above. Your assistance is greatly appreciated, as are your comments regarding the seismic retrofit project, in general, or concerning a specific bridge.

Please feel free to contact us at (707) 792-2797 if you have any questions or need additional information. Thank you for your time.

Sincerely,



Vicki Beard
Senior Associate

Enclosure (1)

ATTACHMENT A

Negative Archaeological Survey Report

NEGATIVE ARCHAEOLOGICAL SURVEY REPORT

1. HIGHWAY PROJECT DESCRIPTION AND LOCATION

District 04	County SON	Route 0-CR	Post Mile 11.83 to 11.91	Charge Unit	Expenditure Authorization
----------------	---------------	---------------	-----------------------------	-------------	---------------------------

Description: The County of Sonoma plans a seismic retrofit of the bridge on Watmaugh Road crossing Sonoma Creek, approximately 2 miles south of the city of Sonoma, Sonoma County (see Figures 1 and 2). The extant bridge is a three-span, pony truss bridge approximately 170 feet in length. The retrofit requires strengthening the two piers and the truss chords, strengthening and widening the pier caps, and rehabilitation of pier 2. A temporary road will be constructed on the southeast side to allow access to work under the bridge. In addition, a sediment stilling basin will be constructed in the gravel bar on the northeast side of the bridge.

2. AREA OF POTENTIAL EFFECTS

Description: The area of potential effect consists of all areas that could be disturbed by construction including: the bridge and an area extending 25 feet along Watmaugh Road in both directions; the road right-of-way; from bank to bank for a distance of 100 feet upstream and 200 feet downstream on Sonoma Creek; the route of the access road at the southeast corner of the bridge; and the location of the sediment stilling basin (see Figure 3). No new right-of-way will be required for the project.

3. INTRODUCTION

NAME(S) OF SURVEYOR(S)	QUALIFICATIONS	DATE(S) OF FIELDWORK
Vicki Beard	M.A. Cultural Resources Management 12 years experience with prehistoric and historic resources in California	February 23, 1999

PRESENT ENVIRONMENT

The project area is situated adjacent to, and includes a portion of, Sonoma Creek, a year-round watercourse that flows south to San Pablo Bay. The riparian corridor consists of native and non-native plant species, primarily live oak trees and vinca. Adjacent lands are nearly flat and are now planted as vineyards and orchards.

ETHNOGRAPHY

At the time of Euroamerican contact with indigenous peoples, the region was controlled by the Coast Miwok. The Coast Miwok are members of the Penutian Linguistic Stock, which is believed to have entered the lower Sacramento Valley about 4,500 years ago. Coast Miwok is of the Utian language family whose members spread to occupy the marshlands surrounding San Francisco Bay between 4,000 and 2,500 years ago, displacing older groups in the area (Moratto 1984:552). Moratto (1984:557) notes that the early Utian settlement pattern matches the distribution of marshlands, with most Utian villages located at marsh margins. The Coast Miwok economy reflects this early focus on marsh resources though it combines it with hunting and gathering in the foothills of the North Coast Ranges. A typical Coast Miwok tribelet inhabited a semi-permanent village from which they made trips to temporary, seasonal camps to obtain locally available resources (Kelly 1978). Milliken (1991:240) ascribes the Sonoma Creek valley in the vicinity of the town of Sonoma to the Chocoime tribe of the Coast Miwok, a tribe also known as the Sonomas and Chucuiens. The nearest reported ethnographic sites are the villages of *hu'tci*, and *te'mblek*, located "near the plaza in the town of Sonoma" and "at a point about a mile and a half west of the town of Sonoma" (Barrett 1908:312), respectively. No ethnographic sites are reported within or near the project area.

4. SOURCES CONSULTED

	Month/Year
<input checked="" type="checkbox"/> National Register of Historic Places and updates to:	10/98
<input checked="" type="checkbox"/> OHP Database of Determinations of Eligibility and updates to:	10/98

- | | |
|--|----------|
| <input checked="" type="checkbox"/> California Register of Historical Resources and updates to: | 10/98 |
| <input checked="" type="checkbox"/> California Historical Landmarks (State of California 1990) and updates to: | 10/98 |
| <input checked="" type="checkbox"/> California Inventory of Historic Resources (State of California 1976) | 1976 |
| <input checked="" type="checkbox"/> Caltrans Historic Highway Bridge Inventory | 1987 |
| <input checked="" type="checkbox"/> Archaeological Site Records [Northwest Information Center, Sonoma State University] | 12/98 |
| <input checked="" type="checkbox"/> Native American Heritage Commission | 12/14/98 |
| <input checked="" type="checkbox"/> Local Native American Groups: Ya-Ka-Ama; Grant Smith; Cloverdale Rancheria;
Dry Creek Rancheria; Lytton Indian Community; Stewart's Point Rancheria | 1/18/99 |
| <input checked="" type="checkbox"/> Other: Tom Origer & Associates | 1/99 |

RESULTS

The literature review encompassed lands within a one-mile radius of the project area. Review found that there are no known archaeological sites within the APE, and there has been no previous study of the area. One prehistoric archaeological site is recorded within a one-mile radius. Bridge 20C-00017 carrying Watmaugh Road over Sonoma Creek is listed as a category 5 bridge (not eligible for inclusion on the National Register of Historic Places) in the Caltrans Local Bridge Survey; however, it is included in the Sonoma County Antique Bridge District. Review of historical maps found no indication of historic-period resources within the archaeological APE.

5. FIELD METHODS

The road right-of-way and all flat to moderately sloped ground within the APE were intensively surveyed. Slopes of 45 percent or greater were not surveyed.

6. REMARKS

No cultural resources were identified within the project APE, and no further archaeological work is recommended. One property owner reported unearthing bowl mortars and other artifacts while cultivating an adjacent vineyard. If buried materials are encountered during construction, it is Caltrans' policy that work in the area must halt until a qualified archaeologist can evaluate the nature and significance of the find.

7. CERTIFICATION

Preparer: Vicki R. Beard

Title: Lead Archaeological Surveyor

Signature

Date

Reviewer

Title

Signature

Date

8. MAPSDISTRICT LOCATION ☒USGS ☒ 1951 Sonoma 7.5' (PR 1980)PROJECT MAP ☒**9. PHOTOGRAPHS**YES ☒ (TOA 98-76)NO ☐ATTACHED (OPTIONAL) ☒

10. BIBLIOGRAPHY

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1908 The Ethno-Geography of the Pomo and Neighboring Indians. University of California Publications in American Archaeology and Ethnology 6(1):1-322. University of California Press, Berkeley.
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1972 Soil Survey of Sonoma County, California. U.S. Department of Agriculture in cooperation with the University of California Agricultural Experiment Station.
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1984 Sonoma County Landmarks. Sonoma County Planning Department, Santa Rosa.
- Thompson, T.H. & Co.
1877 Historical Atlas Map of Sonoma County, California. T.H. Thompson & Co., Oakland.
- United States Army Corps of Engineers (USACE)
1915 Sonoma, California. 15-minute tactical map. Department of the Interior, Washington, D.C.
1942 Sonoma, California. 15-minute tactical map. War Department, Washington, D.C.
- United States Geological Survey (USGS)
1902 Napa, California. 15-minute quadrangle map. Department of the Interior, Washington, D.C.
1951 Sonoma, California. 15-minute quadrangle. Department of the Interior, Washington, D.C.



Figure 1. Project vicinity map (adapted from the *Santa Rosa* 1:250,000-scale map [USGS 1970]).

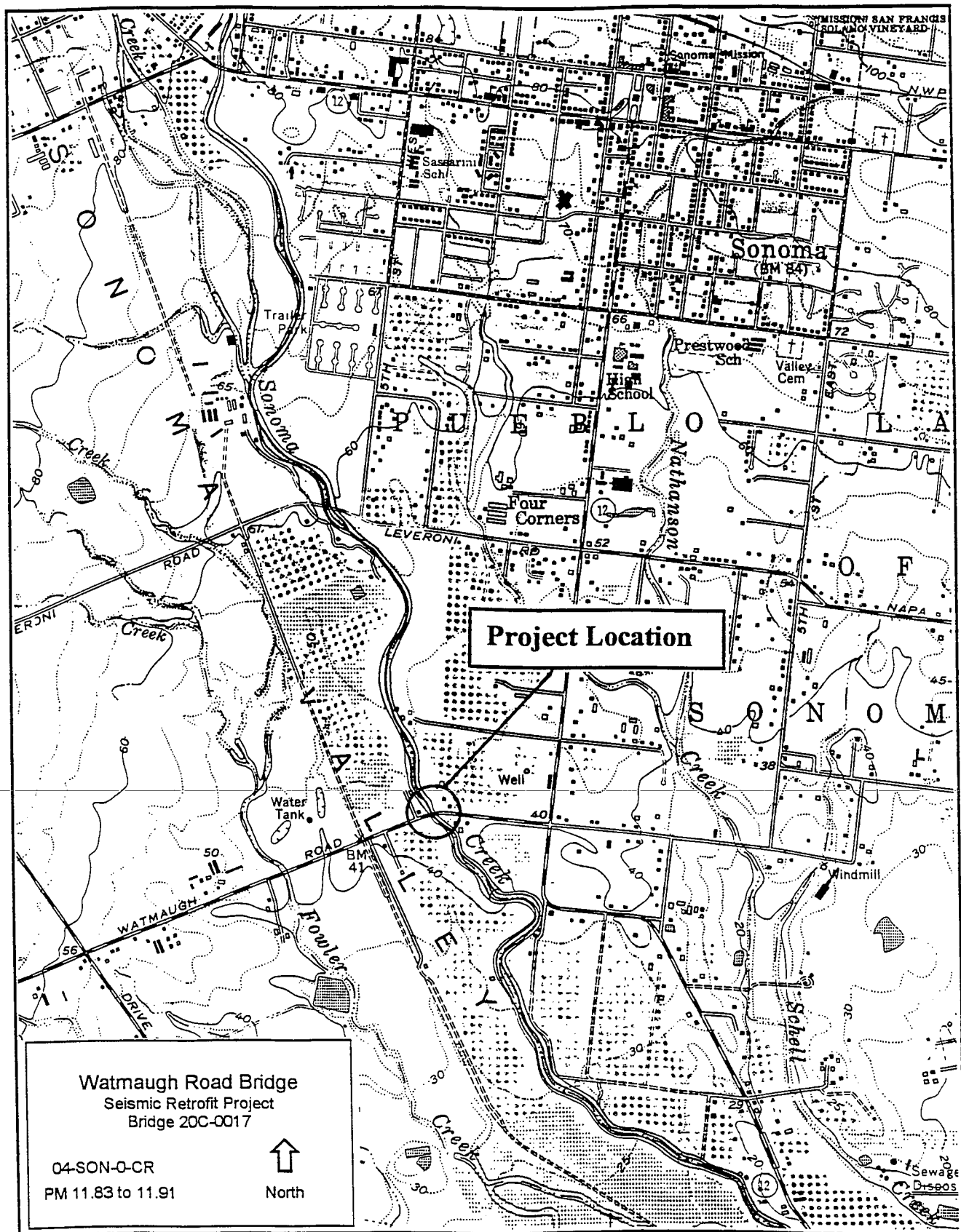
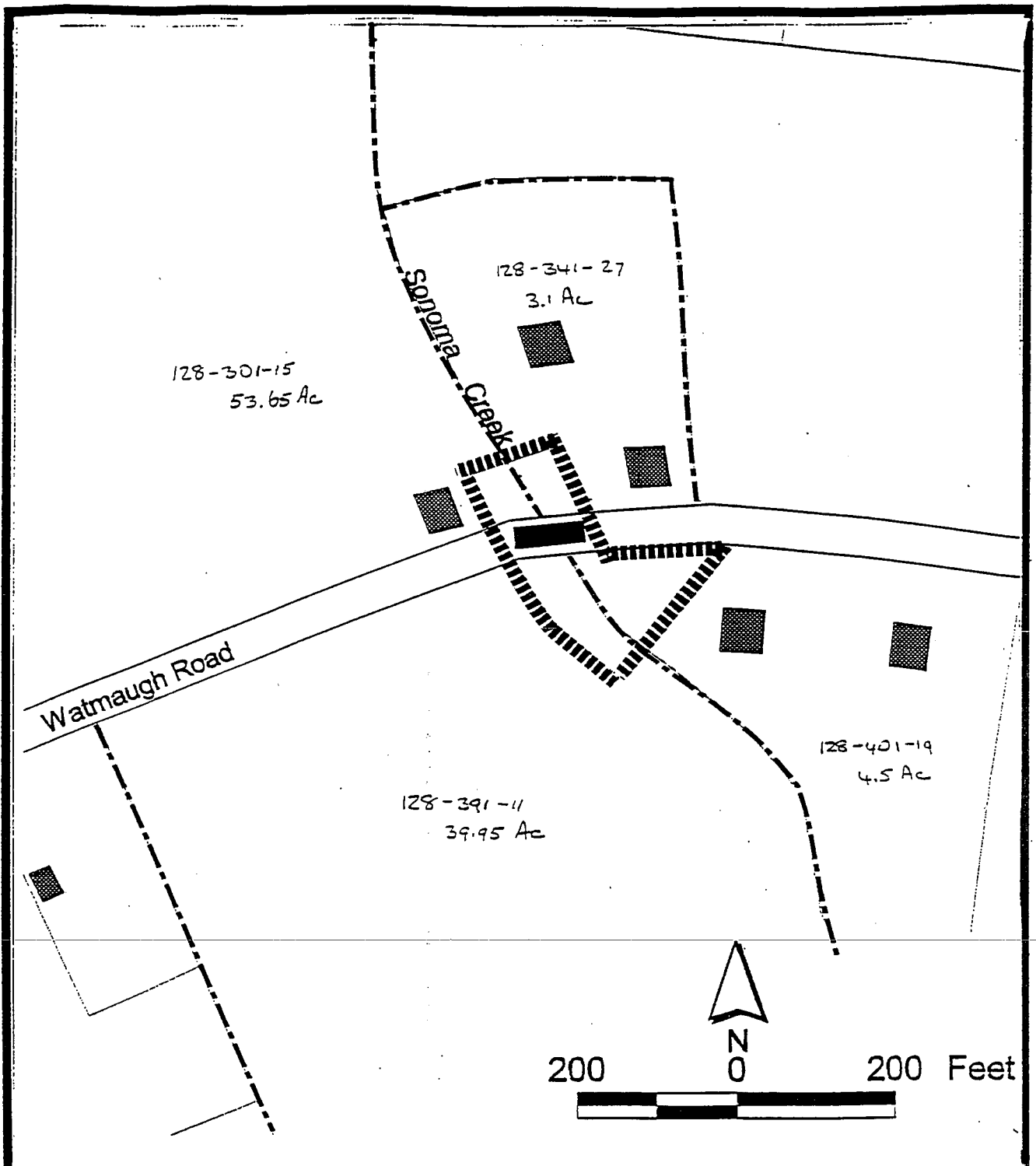


Figure 2. Project location (adapted from the *Sonoma, California* 7.5 minute series map [USGS 1951 photorevised 1980]).



ARCHAEOLOGICAL AREA OF POTENTIAL EFFECT (APE)
WATMAUGH ROAD AT SONOMA CREEK (20C-0017)



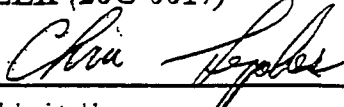


Bridge 
 Archaeological APE 
 Property Lines - - - - -

Figure 3. Archaeological Area of Potential Effects.


 Submitted by


 Approval Recommended: Local Assistance
 11/3/96
 Approved by: FHWA Transportation Engr.

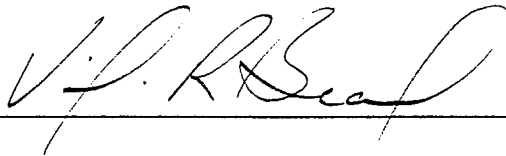
ATTACHMENT B

Historic Architectural Survey Report

HISTORIC ARCHITECTURAL SURVEY REPORT

For the Watmaugh Road at Sonoma Creek
Bridge Seismic Retrofit Project
Sonoma County, California

04-SON-0-CR
P.M. 11.83 – 11.91
(Bridge #20C-0017)

A handwritten signature in black ink, appearing to read 'V.R. Beard', is written over a horizontal line.

Vicki R. Beard

Tom Origer & Associates
P.O. Box 1531
Rohnert Park, California 94927

Submitted to:

Paula Stamp
Sonoma County
Permit and Resources Management Department
2550 Ventura Avenue
Santa Rosa, California 95403

January 22, 2001

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SUMMARY OF FINDINGS	1
PROJECT DESCRIPTION AND AREA OF POTENTIAL EFFECT	1
RESEARCH AND FIELD METHODS	1
HISTORICAL OVERVIEW	2
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Figure 2. Project location	
Figure 3. Architectural area of potential effects	
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Architectural Inventory/Evaluation Forms	

SUMMARY OF FINDINGS

A historic architectural survey was completed for the County of Sonoma for the Watmaugh Road at Sonoma Creek bridge seismic retrofit project, Sonoma County California. The project location is approximately two miles south of the city of Sonoma, in southeastern Sonoma County, California (Figures 1 and 2). The project includes strengthening the two piers and truss chords, strengthening and widening the pier caps, and rehabilitating pier 2. A temporary access road will be constructed southeast of the bridge, and a sediment stilling basin will be constructed in the gravel bar on the northeast side of the bridge.

There are three building complexes within the historic architectural APE with buildings constructed more than 50 years ago. The two parcels on the north side of Watmaugh Road contain historic properties identified in the *Valley of the Moon Historic Resources Survey* (Sonoma League for Historic Preservation 1979). At the time of the 1979 survey, they were rated as category "4" properties indicating that more research and evaluation was needed. This study found no National Register eligible properties within the project's APE.

PROJECT DESCRIPTION AND AREA OF POTENTIAL EFFECT

The project consists of the seismic retrofit of the existing bridge, and includes strengthening the two piers and the truss chords, strengthening and widening the pier caps, and rehabilitating pier 2. A temporary access road will be constructed southeast of the bridge, and a sediment stilling basin will be constructed in the gravel bar on the northeast side of the bridge.

The project's APE for historic architecture consists of four parcels abutting Sonoma Creek at Watmaugh Road Bridge (Figure 3).

<u>Assessor's Parcel Number</u>	<u>Address</u>
128-301-015	300 W. Watmaugh Road
128-391-011	---- W. Watmaugh Road
128-341-027	240 W. Watmaugh Road
128-401-019	201 W. Watmaugh Road

RESEARCH AND FIELD METHODS

Historical research was undertaken at the Northwest Information Center (NWIC), Sonoma State University; the offices of Tom Origer & Associates; the Sonoma County Library Historical Annex; the Sonoma County Recorder's Office; the Sonoma County Assessor's Office; the Sonoma League for Historic Preservation, and the library of the Sonoma Depot Museum.

Field inspection occurred on February 23, 1999, and March 3, 1999. All buildings within the APE were examined and photodocumented, and interviews were conducted with the current property owners.

Preparer's Qualifications

All phases of this study were completed by:

Vicki Beard, M.A., Tom Origer & Associates

Thirteen years experience in California archaeology

Ten years experience in historical/architectural studies.

HISTORICAL OVERVIEW

The project is situated on lands near the Mission San Francisco Solano de Sonoma which were set aside in 1835 for the Sonoma Pueblo. The pueblo at Sonoma was the northern extent of Mexico's military hold on Alta California. After the American take over of California, most of the pueblo lands were sold as relatively small parcels of 30 to 50 acres. Throughout the nineteenth century and up to the present day, lands surrounding the project have been rural agricultural lands. Development in the general area is focused along Broadway, east of the APE, and is limited in nature.

Historically, agriculture, and especially the wine industry, has been a major factor in the region's financial development. Grapes are a dominant crop early in the history of Sonoma Valley, and they brought financial and social success to a handful of pioneering winemakers. In time, even those with limited amounts of land were growing wine grapes as small-scale cash crops, though they never fully dispensed of other crops. As the wine industry in Northern California grew, small vineyards meant added prosperity to those lucky enough to have a few acres to put to vines, and often the growers were absentee owners who paid others to watch over these vineyards. There has been very little change in the use of lands in this part of Sonoma Valley. Presently, vineyards surround Watmaugh Road Bridge as they did in the past.

FINDINGS AND CONCLUSIONS

Three building complexes were found within the project's architectural APE; none appear eligible for inclusion on the National Register of Historic Places. Architectural Inventory/Evaluation Forms are included as an appendix. Watmaugh Road Bridge, also within the APE, was evaluated in a separate report.

201 W. Watmaugh Road

This parcel contains a rural residential complex consisting of a single-family residence, a separate apartment, a metal-clad barn/workshop, and a tennis court. The main residence is a two-story Colonial Revival house with a hipped roof. The pedimented entry porch is flanked by matching bay windows on the first story. The second floor features multipaned, double-hung windows placed symmetrically on the front and sides of the house and asymmetrically

along the rear. Small wings jut out irregularly from the main unit, and a massive chimney rises from the east elevation of the house.

No significant historical linkages were found to this property. County records indicate that the house was constructed in 1941 and field observations are in agreement with that time frame. The property was evaluated under National Register Criterion C and was considered ineligible for listing on the National Register of Historic Places. It is a relatively simple and unelaborated example of Colonial Revival style and has no distinguishing attributes.

240 W. Watmaugh Road

This parcel contains a two-story Italianate house with a typical low-pitched, hipped roof, tall windows with single-paned sashes, and decorative brackets beneath the eaves. A centered gable projects from the roof at the front of the house above four symmetrically placed windows on each floor. The building features a two-tiered, full width porch beneath a shed roof. There is a one-story gabled addition at the rear of the house.

A photograph of the house taken prior to 1898 shows that originally the house was configured much as it is today (Reynolds and Proctor 1898:46). The most notable change is to the two-tiered porch which once had delicate spindlework balustrades at both levels and turned supports. At present, the upper and lower porches are each partially enclosed by the same type of beveled siding that covers the rest of the house. Turned posts have been replaced by simple square supports.

William McElroy, a vineyard overseer for a prominent Sonoma pioneer wine grower (U.S. Bureau of Census 1880), purchased 48 acres of land south of the city of Sonoma in 1894 (Sonoma County Recorder's Office [SCRO] Deeds 154:130). Shortly after, he constructed the two-story home that now occupies a much smaller portion of the original property. McElroy planted vineyard and fruit orchards (Reynolds and Proctor 1898). William and Louise McElroy, and their daughters Edna and Lucinda lived in the house until 1903 when the property was sold to Richard Tiddy and the McElroys moved into town (SCRO Deeds 206:210). Six years later, the 48-acre parcel was sold to A.F. Hopke whose family enjoyed a thirty-year tenure in the house (SCRO Deeds 255:145). Hopke sold most of the land surrounding the house to the Wedekind family in 1920, but held on to the 1.7-acre parcel where the ranch complex is situated until the 1940s when it was sold to William and Josephine Alphonse. The Wedekind family purchased that portion of the property in 1960 (SCRO Official Records 1752:546). This parcel is part of a rural agricultural property containing a late-nineteenth century residence and associated outbuildings.

The house and barn are original buildings associated with Sonoma's prosperity following the initial development of the wine industry in the mid- to late nineteenth century. Numerous small-scale vineyards such as McElroy's appeared across the Sonoma Valley landscape during this time period, McElroy's elaborate house and barn were emblematic of Sonoma's developing middle class, and as such are now good examples of an important part of Sonoma's history. Some of the existing buildings date to recent times and are not representative of the period of significance.

National Register Criteria A, B, and C were considered during this evaluation. The property does not appear to meet Criterion A because it is not associated with any especially notable people. Criterion B was rejected because, while the house and barn reflect Sonoma growth and development in the late nineteenth century, the ranch holds no special distinction. Finally, the architectural integrity of the house is reduced by the major changes to the facade (i.e., changes to the porch). This property does not appear to be eligible for inclusion on the National Register.

300 W. Watmaugh Road

Buildings on this parcel include a single-family dwelling, a large tractor/equipment barn and an office/shop. The outbuildings are set back from Watmaugh Road and the residence. The house is currently a cross-gabled building. The front portion is a simple rectangular cottage originally built to house Southern Pacific Railroad employees (Clippings file, Sonoma Depot Museum). It is clad in vertical board-and-batten siding, has exposed rafter tails beneath the eaves, and trusses in the gables. The gabled rear addition has horizontal clapboard siding.

The front portion of this house was used as housing by Southern Pacific Railroad employees at Schellville in the early part of this century (Clippings file, Sonoma Depot Museum). It was moved to its current location, probably before 1938. County records provide a construction date of 1938 but that date undoubtedly refers to the large, rear addition. The outbuildings also date to the middle part of this century.

National Register Criterion A was considered during this evaluation of the buildings at 300 W. Watmaugh Road. While the original portion of the house could be historically significant as an example of one element of the development of the railroad in Sonoma County, the building has been moved from its original context and has been altered substantially. It no longer has integrity of setting, feeling, or architectural design and is not eligible for inclusion on the National Register of Historic Places.

In sum, three sets of buildings were found within the projects APE; none appear eligible for inclusion on the National Register of Historic Places.

None of the following properties meet the criteria for eligibility to the National Register:

<u>Address</u>	<u>Map ID#</u>
201 W. Watmaugh Road, Sonoma, CA	1
240 W. Watmaugh Road, Sonoma, CA	2
300 W. Watmaugh Road, Sonoma, CA	3

BIBLIOGRAPHY

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1867 Map of Sonoma County, California. Second Edition. A.B. Bowers.

General Land Office (GLO)

1860 Plat of the Petaluma Rancho. Department of the Interior, Washington, D.C.

1876 Plat of the Pueblo Lands of Sonoma. Department of the Interior, Washington, D.C.

Reynolds, W. and T. Proctor

1898 Illustrated Atlas of Sonoma County, California. Reynolds and Proctor, Santa Rosa.

Sonoma League for Historic Preservation

1979 Valley of the Moon Historic Resources Inventory. On file at the Northwest Information Center, Rohnert Park.

Thompson, T.H. & Co.

1877 Historical Atlas Map of Sonoma County, California. T.H. Thompson & Co., Oakland.

United States Army Corps of Engineers (USACE)

1915 Sonoma, California. 15' tactical map. Department of the Interior, Washington, D.C.

1942 Sonoma, California. 15' series map. War Department, Washington, D.C.

United States Geological Survey (USGS)

1902 Napa, California. 30' series map. Geological Survey, Reston, Virginia.

1951 Sonoma, California. 15' series map. Department of the Interior, Washington, D.C.



Figure 1. Project vicinity map (adapted from the *Santa Rosa* 1:250,000-scale map [USGS 1970]).

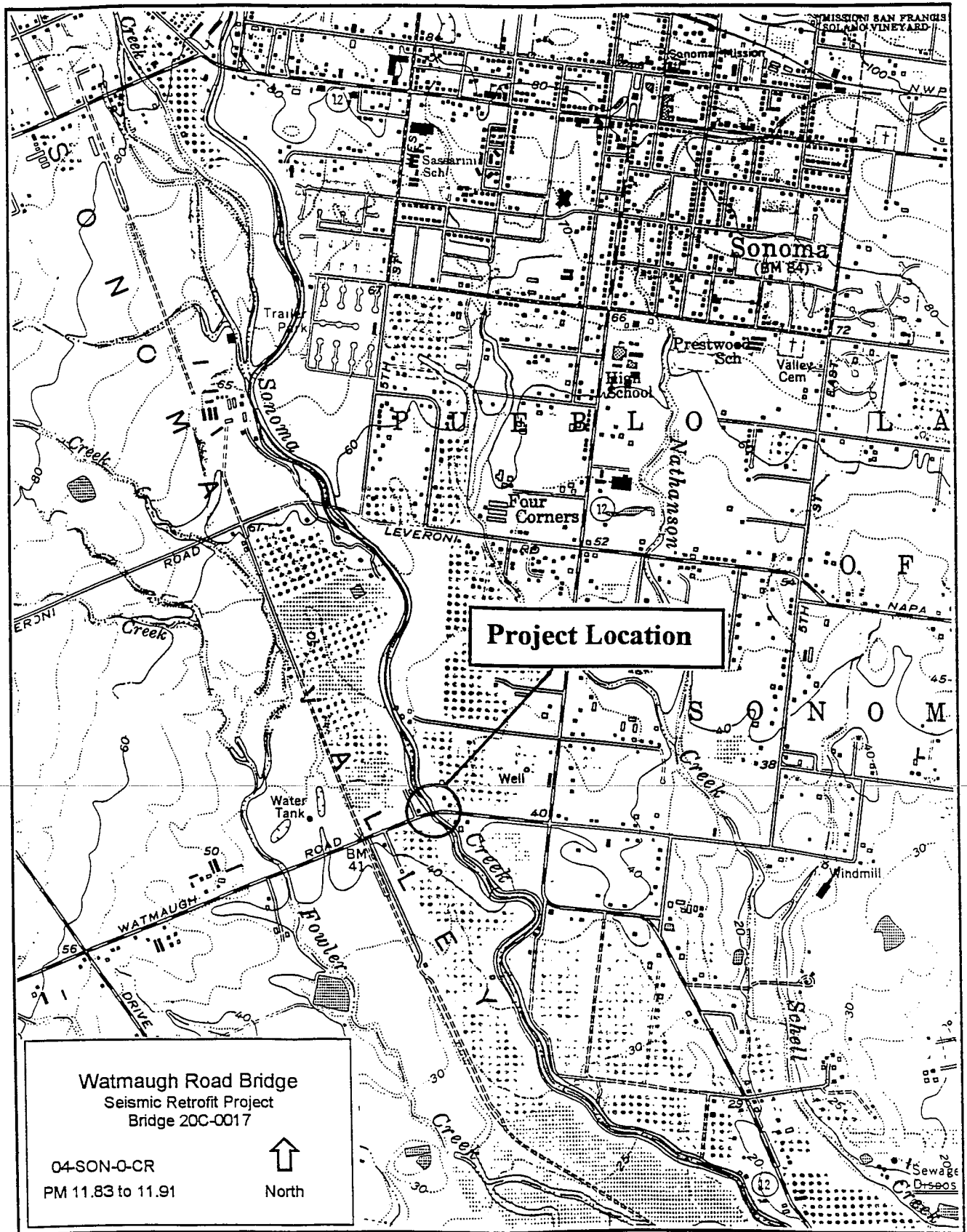


Figure 2. Project location (adapted from the *Sonoma, California* 7.5 minute series map [USGS 1951 photorevised 1980]).

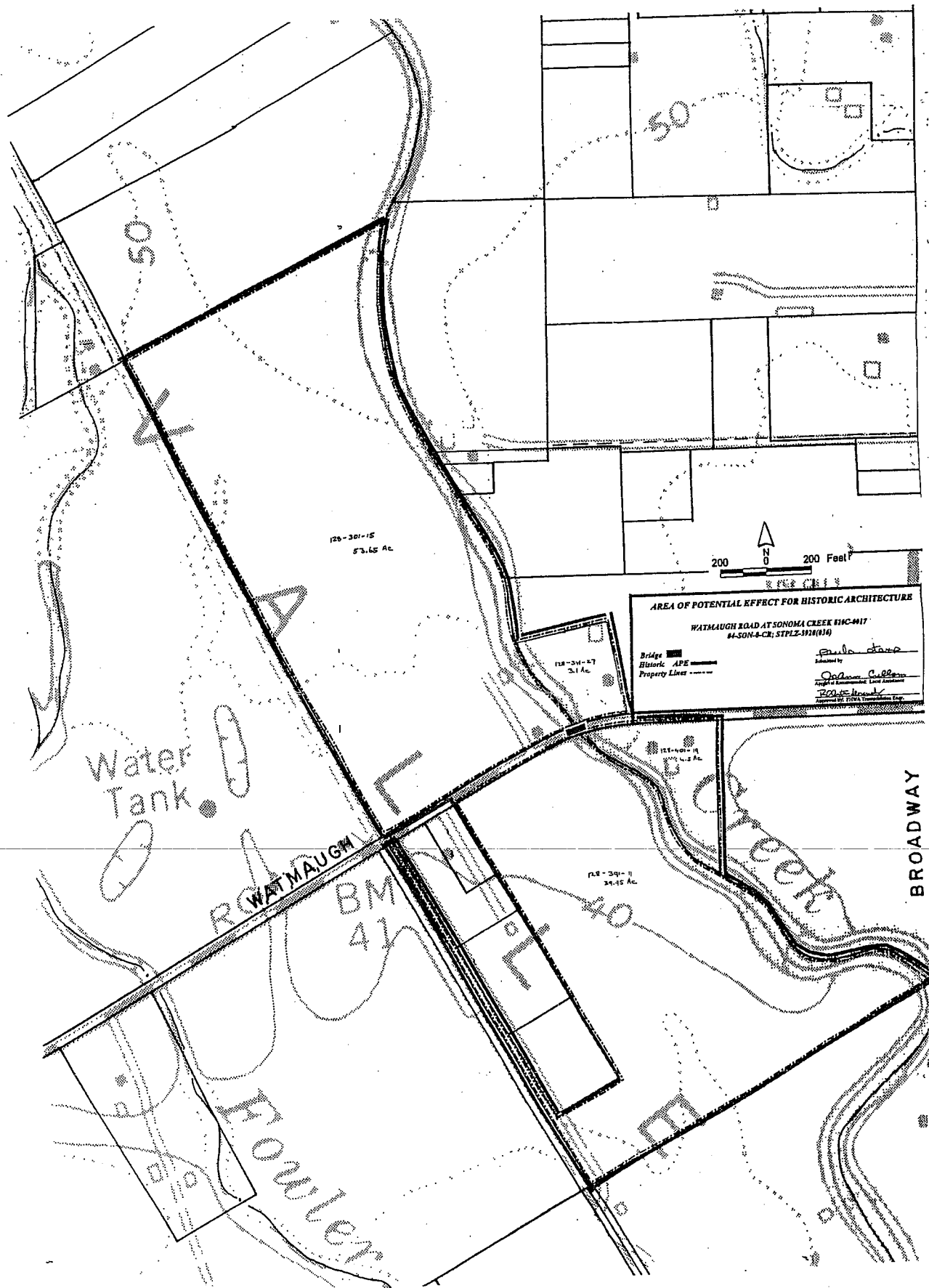


Figure 3. Area of Potential Effects.

APPENDIX

Architectural Inventory/Evaluation Forms

ARCHITECTURAL INVENTORY/EVALUATION FORM

MAP REFERENCE NO.

County - Route - Postmile:
SON CR-0 PM 11.83 to 11.91☐ LISTED
☐ APPEARS ELIGIBLE☐ DETERMINED ELIGIBLE
☒ APPEARS INELIGIBLE**IDENTIFICATION**

1. **Common Name:** None
2. **Historic Name:** None
3. **Street or rural address:** 201 W. Watmaugh Road
City: Sonoma **Zip Code:** 95476 **County:** Sonoma
4. **Parcel Number:** 128-401-019 **Present Owner:** Kenneth and Betsy Niles
Address: P.O. Box 290 **City:** Sonoma **Zip Code:** 95476
5. **Ownership Is:** ☐ Public ☒ Private
6. **Present Use:** Single-family residence **Original Use:** Single-family residence

DESCRIPTION**7a. Architectural Style.** Colonial Revival

This residence is a two-story Colonial Revival with a hipped roof. The pedimented entry porch is flanked by matching bay windows on the first story. The second floor features multipaned, double-hung windows placed symmetrically on the front and sides of the house and asymmetrically along the rear. Small wings jut out irregularly from the main unit, and a massive chimney rises from the east elevation of the house.

7b. Briefly describe the present PHYSICAL CONDITION of the site or structure and describe any major alterations from its original condition: The buildings on this property are in excellent condition.

See Attached Sheet

8. Construction date: 1941
Estimated: ☐ Factual: ☒**9. Architect:** Unknown**10. Builder:** Unknown**11. Approx. property size (in feet)**
Frontage: 325' Depth: 580'**12. Date(s) of enclosed photograph(s):**
March 3, 1999

13. **Condition:** Excellent (☒) Good (☐) Fair (☐) Deteriorated

14. **Alterations:** None observed.

15. **Surroundings:** (Check more than one if necessary) Open land (☒) Scattered buildings (☐)
Densely built-up (☐).

Residential (☒) Industrial (☐) Commercial (☐) Other: Agricultural

16. **Threats to site:** None known (☒) Private Development (☐) Zoning (☐) Vandalism (☐) Public Works
Project

Other:

17. **Is the structure:** On its original site? (☒) Moved? (☐) Unknown? (☐)

18. **Related features:** The property has a metal barn/workshop and a small wood-frame apartment.

SIGNIFICANCE

19. **Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site):** No significant historical linkages were found to the property. It was constructed in 1941, and is an example of Colonial Revival architecture. The property was evaluated under National Register Criterion C and was considered ineligible for listing on the National Register of Historic Places. It is a relatively simple and unelaborated example of the style and has no distinguishing attributes.

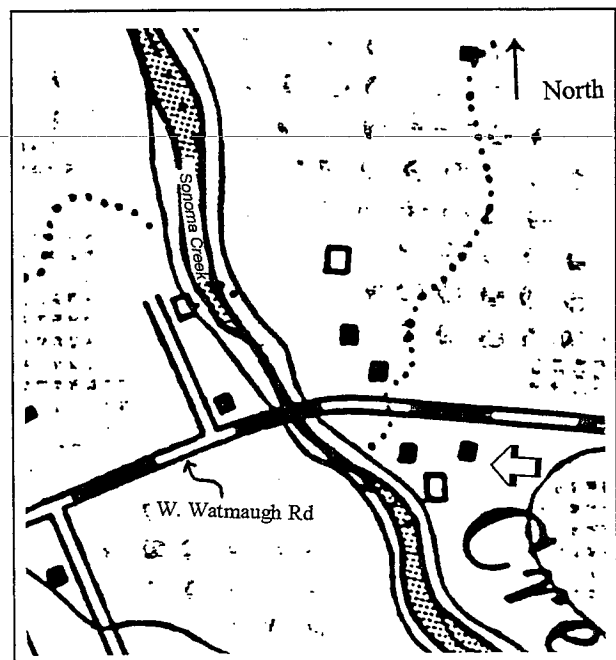
20. **Main theme of the historic resource:** (If more than one is checked, number in order of importance.)

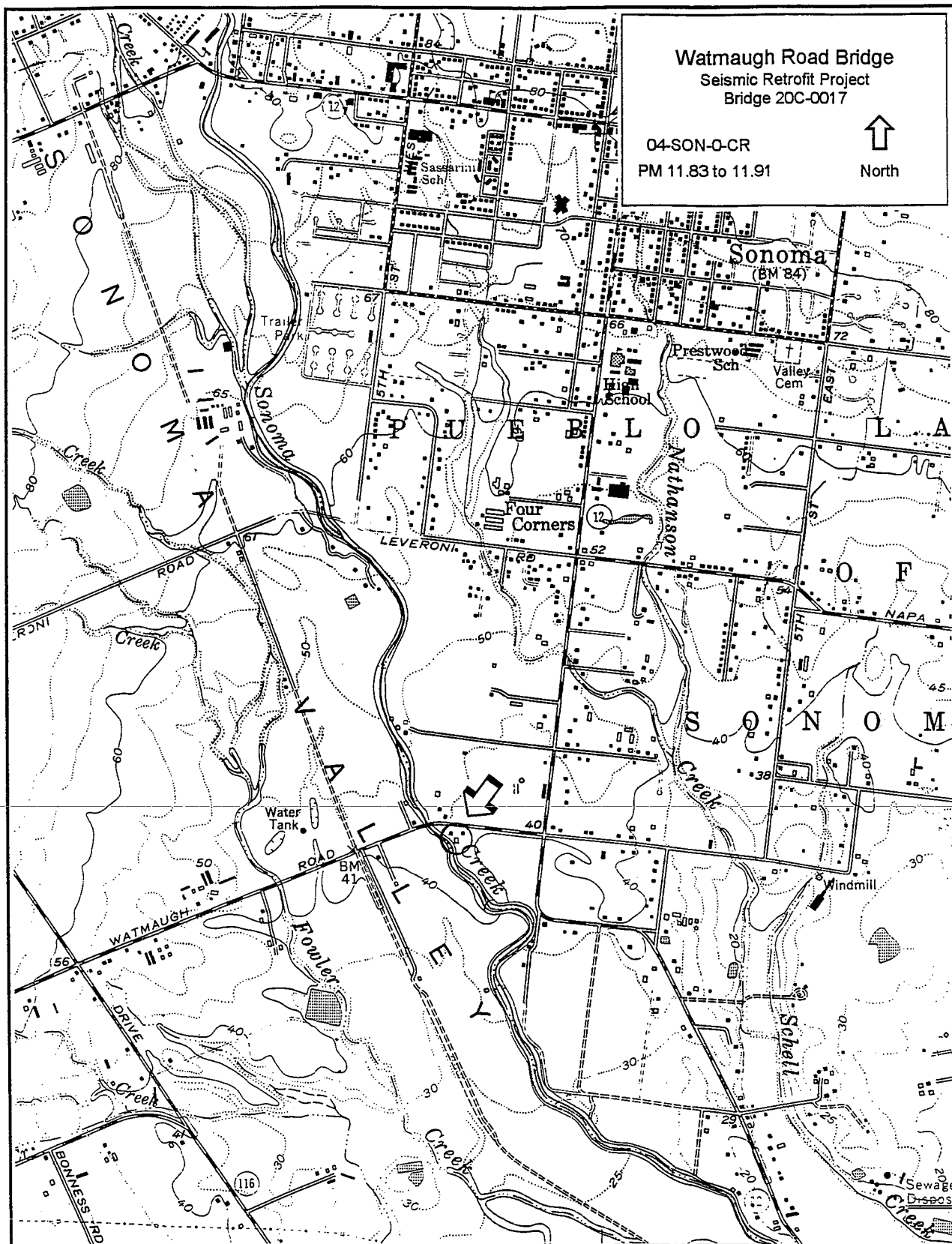
Architecture (☒) Arts & Leisure (☐)
Economic/Industrial (☐) Exploration/Settlement (☐)
Government (☐) Military (☐) Religion (☐)
Social/Education (☐)

Location sketch map (draw & label site
and surrounding streets, roads, and
prominent landmarks)

21. **Sources** (List books, documents, surveys,
personal interviews and their dates.)

22. **Date form prepared:** March 1999
By: V. R. Beard
Organization: Tom Origer & Associates
Address: P.O. Box 1531
City: Rohnert Park, CA
Zip Code: 94927
Phone: (707) 792-2797





Location Map (Sonoma 7.5' USGS topographic quadrangle).

ARCHITECTURAL INVENTORY/EVALUATION FORM

MAP REFERENCE NO.

County - Route - Postmile:
SON CR-0 PM 11.83 to 11.91

() LISTED

() APPEARS ELIGIBLE

() DETERMINED ELIGIBLE

(X) APPEARS INELIGIBLE

IDENTIFICATION

1. **Common Name:** Wedekind Ranch
2. **Historic Name:** William McElroy Ranch
3. **Street or rural address:** 240 W. Watmaugh Road
City: Sonoma **Zip Code:** 95476 **County:** Sonoma
4. **Parcel Number:** 128-341-027 **Present Owner:** Lorraine Wedekind Trust et. al
Address: 240 W. Watmaugh Road **City:** Sonoma **Zip Code:** 95476
5. **Ownership Is:** () Public (X) Private
6. **Present Use:** Single-Family Residence **Original Use:** Ranch

DESCRIPTION

7a. Architectural Style: Italianate

This parcel is part of a rural agricultural property containing a late-nineteenth century residence and associated outbuildings. The house is a two-story Italianate building with a typical low-pitched, hipped-roof, tall windows with single-paned sashes, and decorative brackets beneath the eaves. A centered gable projects from the roof at the front of the house above four symmetrically placed windows on both the first and second floors. The building features a two-tiered, full-width porch beneath a shed roof. Beveled siding covers the house and is used to partially enclose the porch on both levels. The original porch had spindlework balustrades and turned supports. Simple square post now support the porch and beveled siding replaces the spindlework.

7b. Briefly describe the present PHYSICAL CONDITION of the site or structure and describe any major alterations from its original condition: The house, barn, and most other ancillary buildings are in excellent physical condition. A small worker's cottage is partially collapsed, as is one animal enclosure.

See Attached Sheet

8. **Construction date:** 1894
Estimated: (X) Factual: ()

9. **Architect:** Unknown

10. **Builder:** Unknown

11. **Approx. property size (in feet)**
Frontage: 197' Depth: 425'

12. **Date(s) of enclosed photograph(s):**
March 3, 1999

13. **Condition:** Excellent (☒) Good (☐) Fair (☐) Deteriorated

14. **Alterations:** The two-tiered porch at the front of the house has been altered substantially. The original spindlework has been removed and the porch partially enclosed with beveled siding. Square posts replace the delicate turned supports. There have been minor changes to the original floor plan, primarily the result of sealing off a hallway. One of two tank houses has been demolished, and at least one agricultural outbuilding has collapsed.

15. **Surroundings:** (Check more than one if necessary) Open land (☒) Scattered buildings (☐)
Densely built-up (☐).

Residential (☒) Industrial (☐) Commercial (☐) Other: Agricultural

16. **Threats to site:** None known (☒) Private Development (☐) Zoning (☐) Vandalism (☐) Public Works Project

Other:

17. **Is the structure:** On its original site? (☒) Moved? (☐) Unknown? (☐)

18. **Related features:** Contemporaneous with the house is a barn and an adjacent shed. The barn has a one-and-a-half-story gabled central section with flanking shed bays. The high pitched roof is topped with a cupola. Immediately adjacent to the barn is a small gabled shed of the same vintage. Several of the other buildings appear to be early twentieth century additions to the ranch complex including a partially collapsed worker's cottage, a privy, a tankhouse, and miscellaneous sheds. A garage and office appear to be more recent additions to the property.

SIGNIFICANCE

19. **Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site):** No significant historical linkages were found to the property. William McElroy, a vineyard overseer for a prominent Sonoma pioneer wine grower (U.S. Bureau of Census 1880), purchased about 48 acres of land south of the city of Sonoma in 1894 (Sonoma County Recorder's Office [SCRO] Deeds 154:130). Shortly after, he constructed the two-story home that now occupies a portion of the original property. McElroy planted vineyards and fruit orchards (Reynolds and Proctor 1898). William and Louise McElroy, and their daughters Edna and Lucinda lived in the house until 1903 when the property was sold to Richard Tiddy (SCRO Deeds 206:210) and the McElroys moved into town (Gregory 1911:846). Six years later, the 48.5-acre parcel was sold to A.F. Hopke whose family enjoyed a thirty-year tenure in the house (SCRO Deeds 255:145). Hopke sold most of the land (See Continuation Sheet)

20. **Main theme of the historic resource:** (If more than one is checked, number in order of importance.)

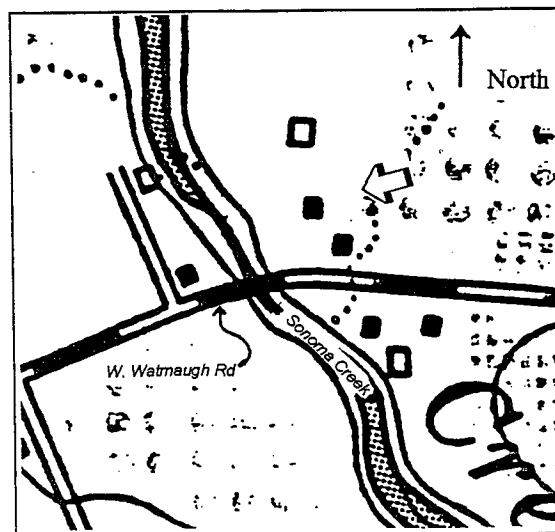
Architecture (☒) Arts & Leisure (☐)
Economic/Industrial (☒) Exploration/Settlement (☐)
Government (☐) Military (☐) Religion (☐)
Social/Education (☐)

Location sketch map (draw & label site and surrounding streets, roads, and prominent landmarks)

21. **Sources** (List books, documents, surveys, personal interviews and their dates.)

See attached References

22. **Date form prepared:** March 1999
By: V. R. Beard
Organization: Tom Origer & Associates
Address: P.O. Box 1531
City: Rohnert Park, CA
Zip Code: 94927
Phone: (707) 792-2797



19. (Continued)

surrounding the house to the Wedekind family in 1920, but held on to the 1.7-acre parcel, where the ranch complex is situated, until the 1940s when it was sold to William and Josephine Alphonse. The Wedekind family purchased that portion of the property in 1960 (SCRO Official Records 1752:546).

The house and barn are original buildings associated with Sonoma's prosperity following the initial development of the wine industry. Numerous small-scale vineyards such as McElroy's appeared across the Sonoma Valley landscape during the late nineteenth century. McElroy's elaborate house and barn were emblematic of Sonoma's developing middle class, and as such are now good examples of an important part of Sonoma's history. Some of the existing buildings date to later time periods and are not representative of the period of significance.

National Register Criteria A, B, and C were considered during this evaluation. The property does not appear to meet Criterion A because it is not associated with any especially notable people. Criterion B was rejected because, while the house and barn reflect Sonoma growth and development in the late nineteenth century, the ranch holds no special distinction. Finally, the architectural significance of the house is greatly reduced by major alterations to the façade. This property does not appear to be eligible for inclusion on the National Register.

References:

Gregory, T.

1911 History of Sonoma County, California. Historic Record Company, Los Angeles

Lewis Publishing Company

1889 History of Sonoma County California. Lewis Publishing Company, Chicago.

Reynolds, W. and T. Proctor

1898 Illustrated Atlas of Sonoma County, California. Reynolds and Proctor, Santa Rosa.

United States Bureau of Census

1880 Sonoma County, California, manuscript census, population schedule.

ARCHITECTURAL INVENTORY/EVALUATION FORM

MAP REFERENCE NO.

County - Route - Postmile:
SON CR-0 PM 11.83 to 11.91

() LISTED

() APPEARS ELIGIBLE

() DETERMINED ELIGIBLE

(X) APPEARS INELIGIBLE

IDENTIFICATION

1. **Common Name:** Yamakawa House

2. **Historic Name:**

3. **Street or rural address:** 300 W. Watmaugh Road

City: Sonoma

Zip Code: 95476

County: Sonoma

4. **Parcel Number:** 128-301-150

Present Owner: Jimmy and Mary Yamakawa

Address: 300 W. Watmaugh Road

City: Sonoma

Zip Code: 95476

5. **Ownership Is:** () Public (X) Private

6. **Present Use:** Single-Family Residence/Agriculture

Original Use: Ranch

DESCRIPTION

7a. **Architectural Style:** Vernacular

The house at 300 W. Watmaugh Road is a simple turn-of-the-century cottage built to house Southern Pacific Railroad employees. It was moved from Schellville to its current location early in this century. The original building comprises the front portion of the now cross-gabled house, and is clad in vertical board-and-batten siding. Exposed rafter tails are visible beneath the eaves, and there is simple decoration at the gabled ends. The gabled rear addition has horizontal clapboard siding.

7b. **Briefly describe the present PHYSICAL CONDITION of the site or structure and describe any major alterations from its original condition:** These buildings are in fair to good physical condition.

See Attached Sheet

8. **Construction date:** c. 1910
Estimated: (X) Factual: ()

9. **Architect:** Unknown

10. **Builder:** Unknown

11. **Approx. property size (in feet)**
Frontage: 1000' Depth: 2400'

12. **Date(s) of enclosed photograph(s):**
March 3, 1999

13. **Condition:** Excellent () Good (X) Fair () Deteriorated
14. **Alterations:** Large gabled addition at the rear of the house.
15. **Surroundings:** (Check more than one if necessary) Open land (X) Scattered buildings ()
Densely built-up ().
- Residential (X) Industrial () Commercial () Other: Agricultural
16. **Threats to site:** None known (X) Private Development () Zoning () Vandalism () Public Works Project
- Other:
17. **Is the structure:** On its original site? () Moved? (X) Unknown? (): Probably moved before 1938.
18. **Related features:** The parcel also has a large tractor barn and an office/shop set back from Watmaugh Road and the residence. They appear to date to the 1940s or later.

SIGNIFICANCE

19. **Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site):** The front portion of this house was used as housing by Southern Pacific Railroad employees at Schellville in the early part of this century (Clippings file, Sonoma Depot Museum). It was moved to its current location, probably before 1938. County records provide a construction date of 1938, and that likely refers to construction of the rear addition.

National Register Criterion A was considered during this evaluation of the buildings at 300 W. Watmaugh Road. While the original portion of the house could be historically significant as an example of one element of the development of the railroad in Sonoma County, the building has been moved from its original context and has been altered substantially. It no longer has integrity of setting, feeling, or architectural design and is not eligible for inclusion on the National Register of Historic Places.

20. **Main theme of the historic resource:** (If more than one is checked, number in order of importance.)

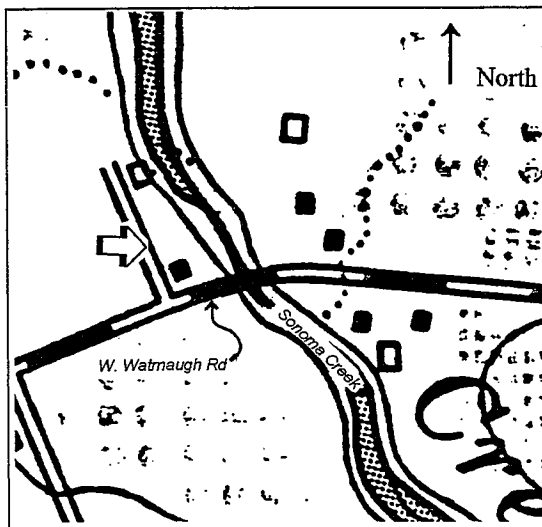
Architecture () Arts & Leisure ()
Economic/Industrial (X) Exploration/Settlement ()
Government () Military () Religion ()
Social/Education ()

Location sketch map (draw & label site and surrounding streets, roads, and prominent landmarks)

21. **Sources** (List books, documents, surveys, personal interviews and their dates.)

See attached References

22. **Date form prepared:** March 1999
By: V. R. Beard
Organization: Tom Origer & Associates
Address: P.O. Box 1531
City: Rohnert Park, CA
Zip Code: 94927
Phone: (707) 792-2797



References:

Reynolds, W. and T. Proctor

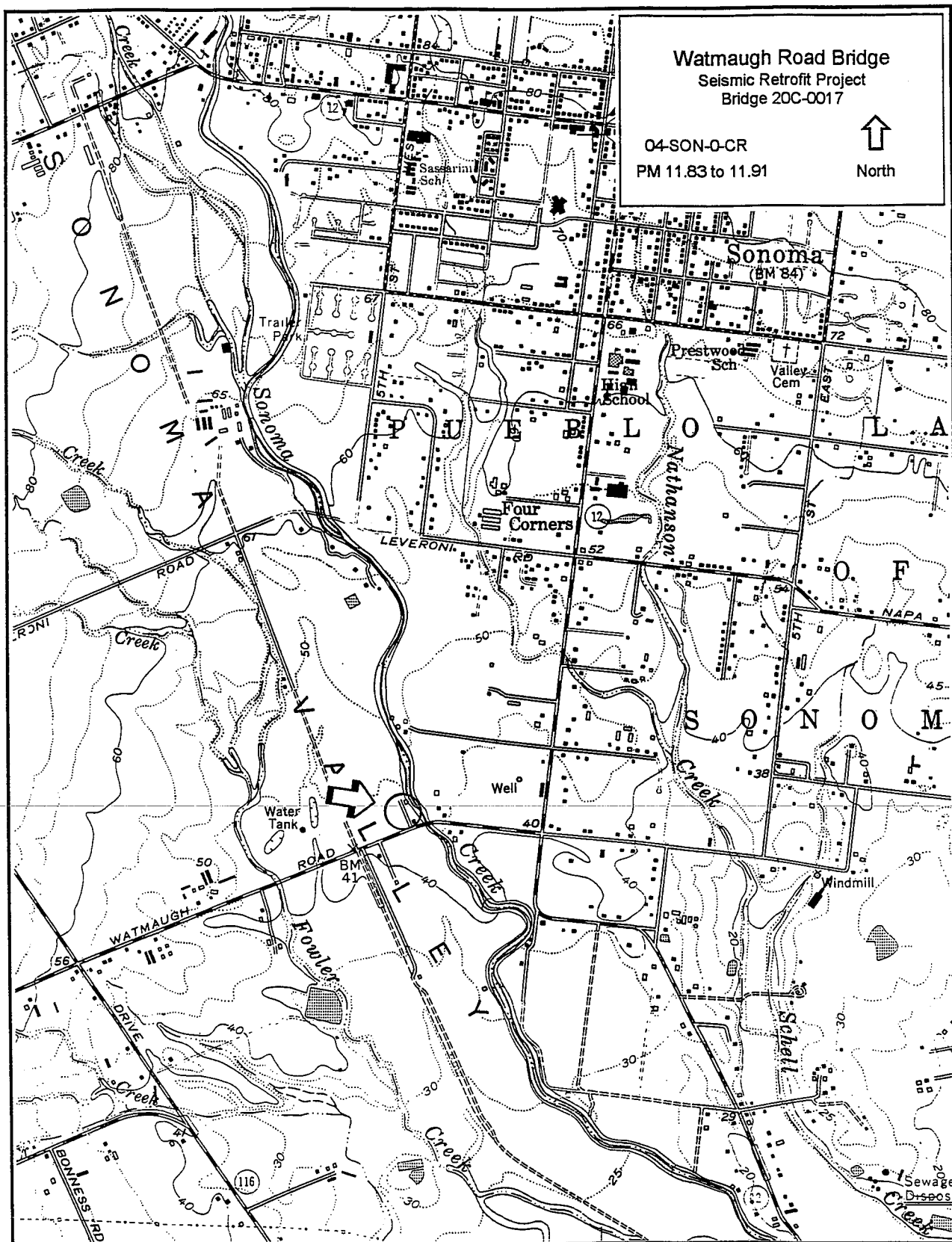
1898 Illustrated Atlas of Sonoma County, California. Reynolds and Proctor, Santa Rosa.

Sonoma Depot Museum

Nd. Clippings file for miscellaneous Sonoma buildings.

Sonoma County League for Historic Preservation

1979 Valley of the Moon Historic Resources Inventory. On file at the Northwest Information Center, Rohnert Park.



Location Map (Sonoma 7.5' USGS topographic quadrangle).

ATTACHMENT C

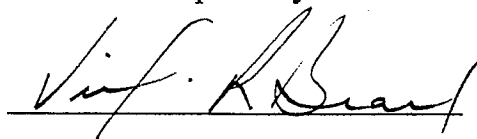
Bridge Evaluation Report

BRIDGE EVALUATION REPORT

For the Watmaugh Road at Sonoma Creek
Bridge Seismic Retrofit Project
Sonoma County, California

04-SON-0-CR
P.M. 11.83 - 11.91
(Bridge #20C-0017)

Prepared by:

A handwritten signature in black ink, appearing to read "Vicki R. Beard", is written over a horizontal line.

Vicki R. Beard, M.A.
Tom Origer & Associates
P.O. Box 1531
Rohnert Park, California 94927

Submitted to:

Paula Stamp
Sonoma County
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, California 95403

January 22, 2001

SUMMARY OF FINDINGS

An evaluation of the Watmaugh Road Bridge (20C-0017) was conducted for the County of Sonoma as part of the Watmaugh Road at Sonoma Creek bridge seismic retrofit project, Sonoma County, California. Watmaugh Road crosses Sonoma Creek approximately two miles south of the city of Sonoma, in southeastern Sonoma County. Evaluation consisted of field examination and photodocumentation of the bridge, and historical research at many state and local facilities.

Watmaugh Road Bridge is a three-span, Warren polygonal pony truss structure designed by County Surveyor E.A. Peugh in 1929 and constructed by contractor W.L. Proctor. The bridge is a locally recognized resource with a historic district (HD) zoning status; however, it does not appear to meet the criteria for inclusion on the National Register of Historic Places.

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DPR 523	

PROJECT DESCRIPTION

The County of Sonoma plans a seismic retrofit of the bridge carrying Watmaugh Road over Sonoma Creek. The retrofit includes the following elements:

1. Pier cap retrofit: The existing concrete pier caps will be widened by approximately two feet on each side and about one foot on each end.
2. Column rehabilitation: A joint in the concrete on pier 2 will be repaired by forming and pouring additional concrete around the joint.
3. Footing retrofit: The footings on pier 2 will be enlarged.
4. Truss member retrofit: Additional plates will be installed to some of the truss members at all four corners of the bridge.
5. Deck to floor beam connections: Holes for bolts will be drilled at multiple locations on the bridge to connect the deck more firmly to the under structure.

To facilitate this work, a temporary access road will be constructed southeast of the bridge, and a sediment stilling basin will be constructed in the gravel bar on the northeast side of the bridge.

RESEARCH METHODS

Historical research was undertaken at the following facilities:

Northwest Information Center, Sonoma State University, Rohnert Park
Caltrans Headquarters, Sacramento
Caltrans District 4, Oakland
Sonoma County Public Works, Santa Rosa
Sonoma County Board of Supervisors, Santa Rosa
Sonoma County Library History Annex, Santa Rosa
Sonoma Depot Museum, Sonoma
Tom Origer & Associates, Rohnert Park.

The Historic Property Directory compiled by the California Office of Historic Preservation (OHP) was reviewed to determine if the bridge is currently recognized as a federal, state, or local historic property. This directory is on file at the Northwest Information Center, and is updated quarterly by OHP. It includes all resources listed on the National Register of Historic Places (National Register), the California Register of Historical Resources (California Register), California Historical Landmarks, Points of Historical Interest, and other properties formally evaluated for their historical significance. The Watmaugh Road Bridge and Sonoma Creek at this location are listed in the Historic Property Directory as a result of the Valley of

the Moon historic resources inventory conducted in 1978 (Sonoma League for Historic Preservation 1979). At that time, the bridge and the creek were categorized as "possibly becoming eligible for inclusion on the National Register" (Archer and Lamp 1978a, 1978b). A previous history of the Watmaugh Road Bridge was prepared for the Sonoma County Board of Supervisors in 1981 by Michael Shainsky.

Previous documents prepared by the California Department of Transportation (Caltrans) for this resource type were reviewed, including the *Historic Truss Bridges in California: Request for Determination of Eligibility* (Caltrans 1985), *Caltrans Local Bridge Survey* (Caltrans 1987), and *Historic Highway Bridges of California* (Caltrans 1990). Watmaugh Road Bridge was assigned a significance code of 5 (appears to not meet the National Register criteria for listing) in the *California Local Bridge Survey*.

The following historical groups were contacted for information about the bridge:

Sonoma County Historical Society, Santa Rosa
Sonoma League for Historic Preservation, Sonoma
Sonoma Depot Museum, Sonoma

In addition, bridge historian, John Snyder met in consultation with Sonoma County Environmental Planner, Paula Stamp and the author, Vicki Beard regarding this evaluation. Mr. Snyder also reviewed a draft edition of this report.

HISTORICAL CONTEXT

Caltrans presently lists 589 extant bridges on or over Sonoma County roads in their Structures Maintenance Log (Caltrans 1999a and 1999b). Of those, 186 are on state highways and are overseen by Caltrans, and 403 are on local roads and fall under the jurisdiction of county or city agencies. Sonoma County bridges take many forms and represent a variety of construction techniques and materials. By far the largest subset is comprised of reinforced concrete bridges. Steel (and iron) truss bridges are poorly represented in the county, numbering 19 in all, of which two are on state maintained highways. There are three additional bridges in Sonoma County that technically fall into the truss category though they are enumerated separately by Caltrans. These bridges, commonly known as "Bailey bridges," generally are considered temporary structures and are constructed of prefabricated, interchangeable truss panels that are bolted together. One truss bridge, a temporary summer crossing constructed over the Russian River in 1993, was excluded from the following discussion.

On a regional scale, Caltrans (1985) prepared a context for evaluating metal truss bridges in California, and locally, historian Dennis Harris (1993) identified issues regarding metal truss bridges in Sonoma County. Sonoma County truss bridge construction occurred during four major eras: railroad bridge development; early-twentieth-century railroad and roadway development; county modernization; and state support. They also reflect technological changes affecting transportation both state and nationwide during the early twentieth century.

In 1919, a bond measure was passed by the Sonoma County Board of Supervisors, and subsequently by popular vote, funding modernization of the county road system. The proposed roads would link Sonoma, Petaluma, Valley Ford, Bodega Bay, and north to the Mendocino County Line; Santa Rosa, Sebastopol, Freestone, and Valley Ford; Healdsburg, Forestville, Guerneville, and Jenner; Healdsburg to the Napa County Line; Cotati, Sebastopol, and Forestville; and Graton and Occidental. The improvements plan included construction of several new bridges and replacement of others. Six of the existing truss bridges in Sonoma County were built under this plan. The majority of these six were completed during the nine-year period preceding 1930. Only two of the remaining truss bridges were built under the County plan during the early 1930s. The "D" Street Bridge in Petaluma was constructed in 1933 and it is unique in two respects. First, it was funded by the City of Petaluma "in conjunction with a Corps of Engineers river improvement project" (Peterson 1978:20), and it is a single-leaf bascule bridge, the only moveable truss bridge on a road in Sonoma County.

The County stuck to its road projects during the first years of the Great Depression, but the County's ability to complete its projects was severely hindered as the decade progressed. In 1933, the State took control of much of the County's road system, including portions of present-day State Highways 1, 12, 116, and 128. Nine of the extant truss bridges were constructed after that date.

The creek crossing at Watmaugh Road was a ford until the 1890s when, at the behest of local residents, the County financed construction of a wooden bridge (Sonoma County Board of Supervisors [SCBS] 1891a). The construction contract was awarded to the King Iron Bridge Manufacturing Company in 1891 for \$2,730.00 (SCBS 1891b). This bridge provided a more direct link to the south end of Sonoma and the lower Broadway area.

The County opted to replace the original bridge under the 1919 highway modernization plan. New plans were drawn for a steel truss bridge by County Surveyor, E.A. Peugh in 1929, and the construction contract went to W.L. Proctor for \$14,783.00 (SCBS 1929).

FIELD METHODS

Field inspection of the project area occurred on February 23, 1999. The bridge was examined and notes were taken as to construction techniques, setting, and integrity. Black and white photographs were taken of the bridge from several locations.

Survey Crew

All phases of this study were completed by:

Vicki Beard, M.A. Cultural Resources Management, Tom Origer & Associates;
Thirteen years experience in California archaeology; ten years experience in historical and architectural studies.

FINDINGS

The Watmaugh Road Bridge (historically known as the Hopke Bridge) is a three-span, pony truss bridge approximately 170 feet long and 24 feet wide. The main span is 102 feet long and is a steel pony truss with a concrete deck. The superstructure is comprised of a Warren polygonal pony truss. Presently, the main span has metal guardrails. Concrete approach spans measuring 38 feet on the west and 29 feet on the east flank the main span. The approaches have cast concrete rails. The bridge is supported by concrete abutments and two concrete piers. The bridge has no walkway and is unlighted.

Watmaugh Road Bridge was designed by County Surveyor, E.A. Peugh and constructed by contractor W.L. Proctor in 1929. The bridge is situated in its original location and is relatively unaltered from its original design. Moreover, the surrounding area remains rural agricultural land, much as it was in 1929 when the bridge was built.

Events occurring in late-1970 and early-1980 demonstrate the importance of this bridge to local residents. When the County considered replacing the bridge, citizens formed the Committee for the Preservation of Watmaugh Road Bridge to prevent the replacement project, arguing that "the bridge has considerable character, which can not be said of the two bridges recently constructed on Highway 121 and on Leveroni Road" (Niles 1981). Other citizens groups, and the Sonoma League for Historic Preservation, joined this committee in its efforts. Subsequently, the bridge was granted county landmark status in 1981 and received historic district (HD) zoning.

Proposed changes to Sonoma County bridges carrying the HD zoning designation are reviewed by the Sonoma County Landmarks Commission (SCLC). The retrofit project for Watmaugh Road Bridge was presented to the Commission at their regular meeting on June 30, 1998. The Commission approved the plan with the following comment:

This retrofit should not be visible as most work will be done to the piers, columns, and footings. The reinforcement of the trusses at the end of the bridge will be underneath the trusses, and should not affect the appearance [SCLC 1998].

CONCLUSIONS

The Watmaugh Road Bridge was evaluated within the context of Sonoma County's Highway Modernization Plan of 1919. To be eligible for inclusion on the National Register, a property must possess integrity of location, design, setting, materials, workmanship, feeling, and association (National Park Service [NPS] 1995). If it is found to possess integrity, then one of the following criteria must be met:

- A. Association with events that made a significant contribution to the broad patterns of our history; or

- B. Association with the lives of persons significant in our past; or
- C. Embodiment of the distinctive characteristics of a type, period, or method of construction, or that are representative of a master, or possess high artistic value, or are representative of a significant and distinguishable entity whose components may lack individual distinction; or
- D. Has yielded or has the potential to yield information important in prehistory or history.

Watmaugh Bridge retains a high degree of integrity in all aspects. The location, setting, and feeling are relatively unchanged, and physical alterations are limited to replacement of lattice rails with the existing metal beam rails.

During this evaluation, Watmaugh Bridge was considered for eligibility to the National Register under criteria A and C. The bridge was constructed as part of a countywide highway plan approved by the county supervisors and voters in 1919. As such, the bridge is associated with a period of growth and development in Sonoma County, and, in particular, with the event of modernizing the county highway system. However, in order to meet Criterion A, "the property must have an important association with the event" (NPS 1995:12). No compelling link was found between the road modernization plan and construction of the Watmaugh Road Bridge and therefore Criterion A was not met.

This structure does not meet Criterion C because, although the Watmaugh Road Bridge is one of only two remaining Warren trusses in Sonoma County, Caltrans found Warren truss bridges to be numerous throughout the state (Caltrans 1990), and this bridge is not exemplary of the Warren truss bridge-type.

This study finds that the Watmaugh Road Bridge does not appear to meet National Register eligibility criteria. John Snyder, a former Caltrans historian who was instrumental in the Caltrans local bridge survey, reviewed a draft of the evaluation and concurred with the findings.

BIBLIOGRAPHY

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1978b Historic Resources Inventory form for Sonoma Creek from Leveroni Road through Watmaugh Road. HRI number 49-5476-0254 at the Northwest Information Center, Rohnert Park.

California Department of Transportation (Caltrans)

1984 Truss Bridge Rating Sheet. On file with the California Department of Transportation, District 4, Oakland.

1985 *Historic Truss Bridges in California: Request for Determination of Eligibility*. California Department of Transportation, Sacramento.

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1999b Structures Maintenance Log: State Bridges. <<http://www.dot.ca.gov/hq/structur/strmaint/srlocal/20.txt>>

1999c Historical Significance--Local Agency Bridges, Sonoma County. <http://www.dot.ca.gov/hq/structur/strmaint/hs_local.pdf>

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1993 *Landmark American Bridges*. In association with the American Society of Civil Engineers. Little, Brown and Company, Boston.

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1988 *Great American Bridges and Dams*. Preservation Press, Washington, D.C.

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1995 *How to Apply the National Register Criteria for Evaluation*. National Register Bulletin 15 Department of the Interior, National Park Service, Washington, D.C.

Niles, K.

1981 Letter from Kenneth Niles to Donald B. Head, Director, County of Sonoma Public Works. On file with the Sonoma County Landmarks Commission.

Office of Historic Preservation

1999 *Historic Properties Directory*. California Office of Historic Preservation, Sacramento.

Peugh, E.

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Reynolds W. and T. Proctor

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Shainsky, M.

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1954 *The World's Greatest Bridges*. Harper, New York.

Sonoma County Board of Supervisors

1891a Petition to the Board of Supervisors for a bridge over Sonoma Creek. Road Book 4:375-377.

1891b Award of contract for construction of bridge over Sonoma Creek. Petition to the Board of Supervisors for a bridge over Sonoma Creek. Road Book 4:382-384.

1919a Minutes of the April 16, 1919, meeting of the Board of Supervisors of Sonoma County. Book 21:312-325.

1919b Minutes of the May 27, 1919, meeting of the Board of Supervisors of Sonoma County. Book 21:338.

1929 Award of contract to W.L. Proctor for construction of a truss bridge on Sonoma Creek. General Minutes of the Board of Supervisors. Book 28:61.

1938 Minutes of the May 27, 1938, meeting of the Board of Supervisors of Sonoma County. Book 33:224-225.

1939 General Index to Minutes of the Board of Supervisors: 1883-1939.

1998 Ordinance No. 5985. Summary ordinance to change zoning districts of property.

Sonoma County Landmarks Commission

1998 Minutes of the meeting of June 30, 1998.

Sonoma League for Historic Preservation

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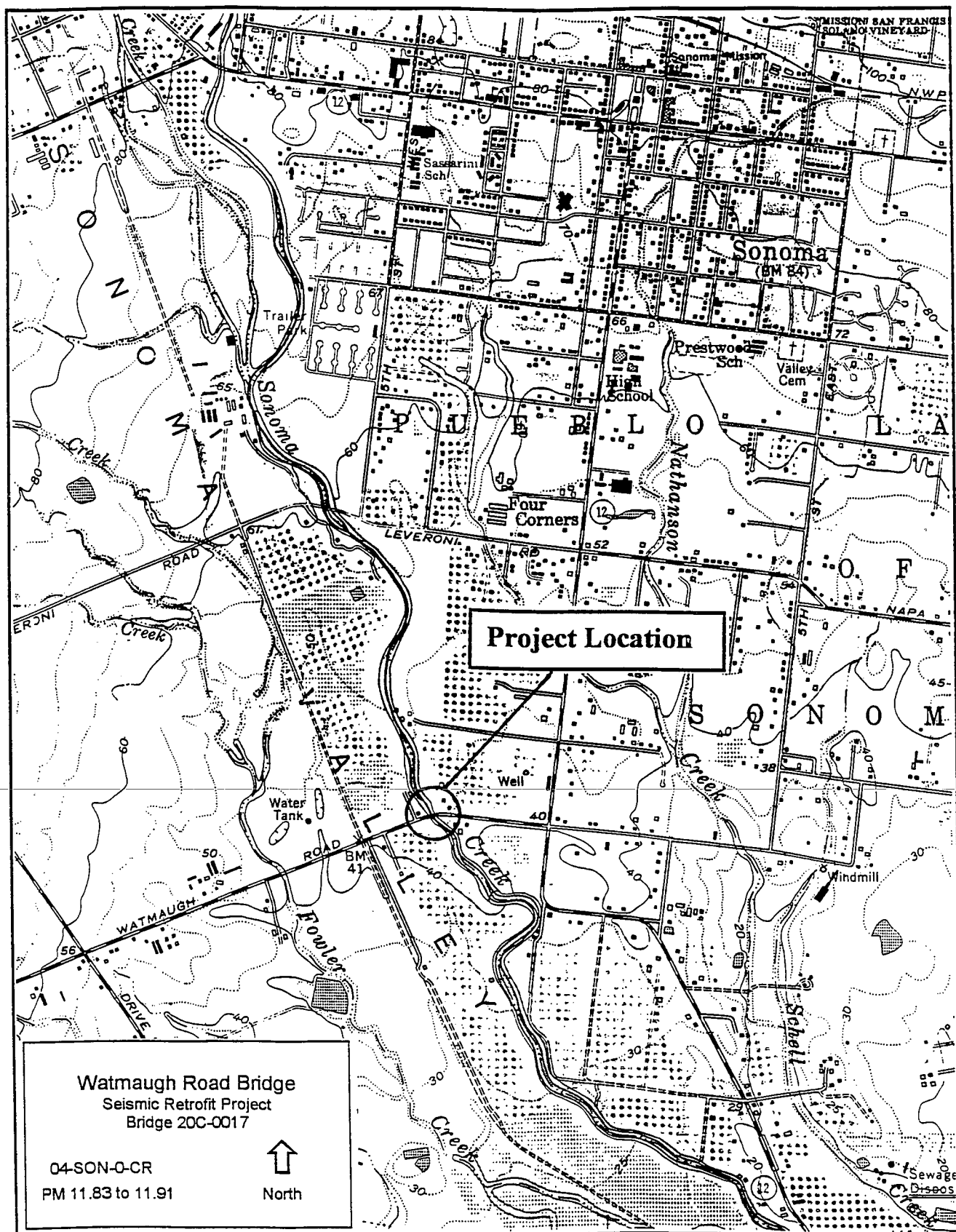


Figure 2. Project location (adapted from the *Sonoma, California* 7.5 minute series map [USGS 1951 photorevised 1980]).

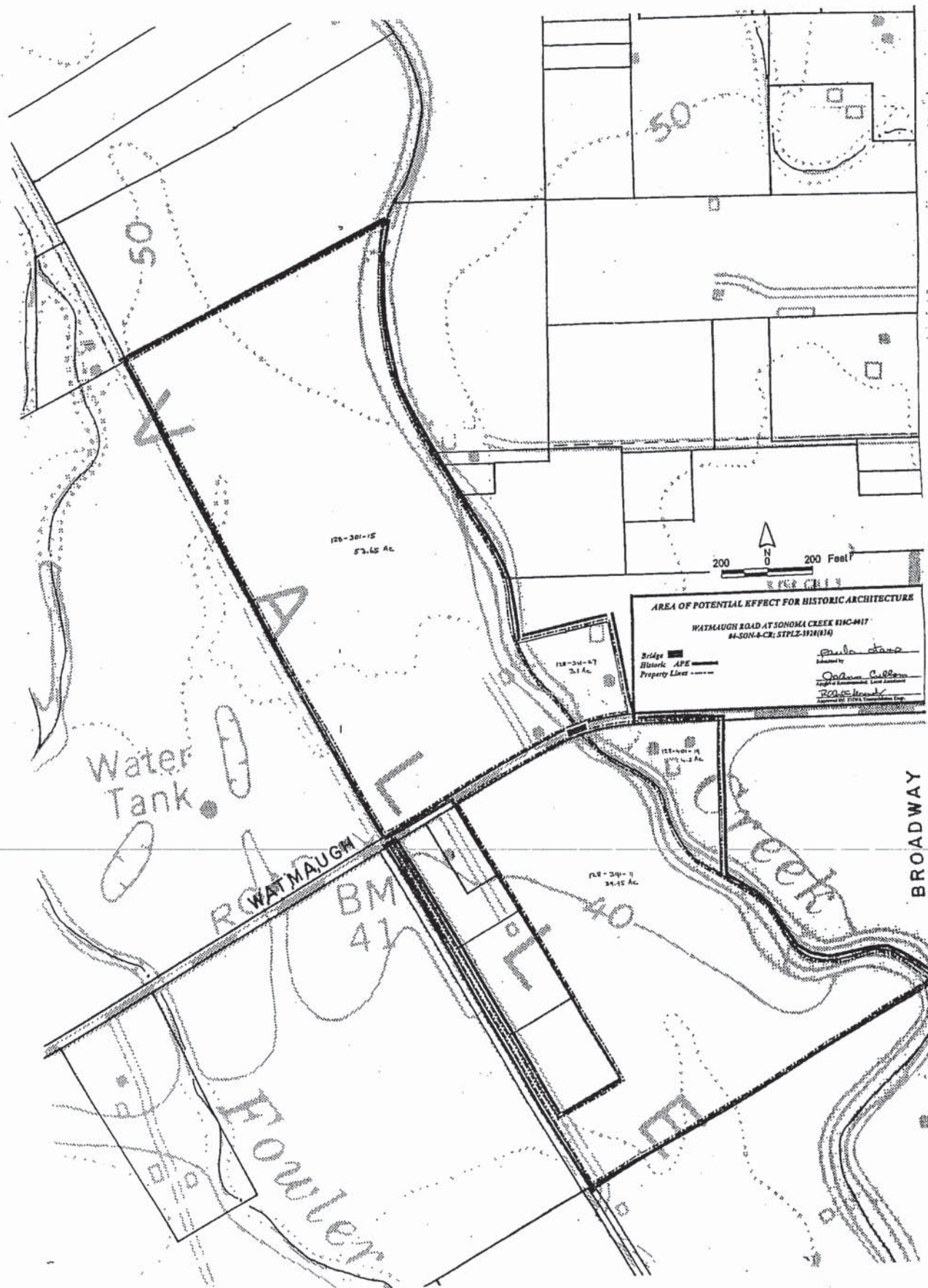


Figure 3. Area of Potential Effects.

APPENDIX

DPR 523

PRIMARY RECORD

Primary #
HRI # 5476-0255-0000
Trinomial:
NRHP Status Code: 5S1
Resource Name or #: Watmaugh Road Bridge

Other Listings:

Review Code:

Reviewer:

Date:

Page 1 of 5

P1. Other Identifier: Bridge 20C-0017

P2. Location:

a. County: Sonoma

b. USGS 7.5' Quad: Sonoma

Date: 1951 (photorevised 1980)

T 5 N/R 6 W; 1/4 of 1/4 of Sec. ; MDBM On boundary between the Petaluma Rancho and Pueblo Lands of Sonoma

c. Address:

City:

Zip:

d. UTM: Zone: 10

546700 mE

4235260 mN

e. Other Locational Information: In southeastern Sonoma County, about two miles south of the city of Sonoma. This bridge carries Watmaugh Road over Sonoma Creek.

P3a. Description:

Watmaugh Road Bridge is a three-span structure carrying Watmaugh Road over Sonoma Creek. The bridge is 170 feet long and 24 feet wide. Its main span is a 102-foot long, rigid connection Warren pony truss structure with a polygonal top chord. The approach spans are made of reinforced concrete and have cast concrete rails. Concrete abutments and piers support the superstructure and the asphalt-over-concrete deck. This bridge was designed by Sonoma County Surveyor, E.A. Peugh in 1929. The contractor was W.L. Proctor. The bridge is in its original location and has good integrity of setting. The bridge is relatively unaltered from its original design. Its original lattice guardrails have been replaced by steel beam rails.

P3b. Resource Attributes: HP19 (Bridge)

P4. Resources Present: Structure

P5. Photograph or Drawing:

P5b. Description of Photo: View of south elevation, facing northeast



P6. Date Constructed/Age and Sources:

1929 (county records)

P7. Owner and Address:

County of Sonoma
2550 Ventura Ave.
Santa Rosa, CA 95403

P8. Recorded by:

Tom Origer & Associates
P.O. Box 1531
Rohnert Park, CA 94927

P9. Date Recorded:

February 1999

P10. Type of Survey:

Reconnaissance

P11. Report Citation: Beard, V. 2001 Historic Property Survey Report for the Watmaugh Road at Sonoma Creek Bridge Seismic Retrofit Project, Sonoma County, California.

P12. Attachments: Building, Structure, and Object Record; Continuation Sheets (2); Location Map.

BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #

HRI # 5476-0255-0000

NRHP Status Code: 5S1

Resource Name or #: Watmaugh Road Bridge

Page 2 of 5

- B1. **Historic Name:** Hopke Bridge
- B2. **Common Name:** Watmaugh Road Bridge
- B3. **Original Use:** Highway bridge
- B4. **Present Use:** Highway bridge
- B5. **Architectural Style:** Warren pony truss with polygonal top chord
- B6. **Construction History:** Steel beam guardrails added prior to 1981 replacing steel lattice rails.
- B7. **Moved?** No **Date:** N/A **Original Location:** N/A
- B8. **Related Features:** None
- B9a. **Architect:** E. A. Peugh, Sonoma County Surveyor **B9b. Builder:** W.L. Proctor
- B10. **Significance:** **Theme:** Sonoma County's 1919 Highway Modernization Plan **Area:** Sonoma County
Period of Significance: 1919 to 1933
Property Type: Bridge
Applicable Criteria:

The Watmaugh Road Bridge is one of nineteen extant metal truss bridges in Sonoma County, and one of two remaining Warren pony truss bridges in the county. The existing truss bridges were constructed from circa 1880 to 1949 and include former railroad bridges and bridges built exclusively for wagon/automobile transportation. In 1919, a bond measure was passed by the Sonoma County Board of Supervisors, and subsequently by popular vote, funding modernization of the county road system. The proposed roads would link Sonoma, Petaluma, Valley Ford, Bodega Bay, and north to the Mendocino County Line; Santa Rosa, Sebastopol, Freestone, and Valley Ford; Healdsburg, Forestville, Guerneville, and Jenner; Healdsburg to the Napa County Line; Cotati, Sebastopol, and Forestville; and Graton and Occidental. The improvements plan included construction of several new bridges and replacement of others. Six of the existing truss bridges in Sonoma County were built under this plan. The majority of these six were completed during the nine-year period preceding 1930. Only two of the remaining truss bridges were built under the County plan during the early 1930s.

(See Continuation Sheet page 3)

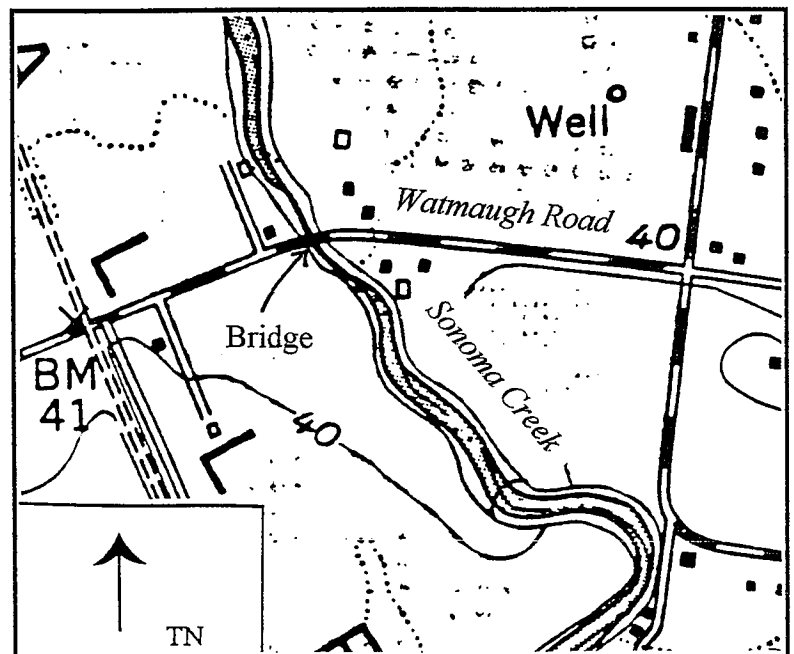
B11. **Additional Resource Attributes:** None

B12. **References:**
(See Continuation Sheet page 4)

B13. **Remarks:**

B14. **Evaluator:** Vicki Beard
Date of Evaluation: January 2001

North ↑



CONTINUATION SHEET

Primary #

HRI # 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date: January 2001

Page 3 of 5

Recorded by: V.R. Beard

B10. Significance: (Continued from page 2)

During the first years of the Great Depression, the County stuck to its road projects but as the decade progressed, the County's ability to complete its projects was severely hindered. In 1933, the State took control of much of the County's road system, including portions of present-day State Highways 1, 12, 116, and 128. Nine of the extant truss bridges were constructed after that date.

The creek crossing at Watmaugh Road was a ford until the 1890s when, at the behest of local residents, the County financed construction of a wooden bridge (Sonoma County Board of Supervisors [SCBS] 1891a). The Watmaugh Road crossing provided a more direct link to the south end of Sonoma and the lower Broadway area. The contract for construction of the bridge was awarded to the King Iron Bridge Manufacturing Company in 1891 for \$2,730.00 (SCBS 1891b). The County opted to replace the original bridge under the 1919 Highway Modernization Plan. New plans were drawn for a steel truss bridge by County Surveyor, E.A. Peugh in 1927, and the construction contract went to W.L. Proctor for \$14,783.00 (SCBS 1929).

Events occurring in late-1970 and early-1980 demonstrate the importance of this bridge to local residents. When the County considered replacing the bridge, citizens formed the Committee for the Preservation of Watmaugh Road Bridge to prevent the replacement project arguing that "the bridge has considerable character, which can not be said of the two bridges recently constructed on Highway 121 and on Leveroni Road" (Niles 1981). Other citizens groups and the Sonoma League for Historic Preservation joined this committee in its efforts. Subsequently, the bridge was granted county landmark status in 1981 and received historic district (HD) zoning.

The Watmaugh Road Bridge was evaluated within the context of Sonoma County's Highway Modernization Plan of 1919. To be eligible for inclusion on the National Register, a property must possess integrity of location, design, setting, materials, workmanship, feeling, and association (National Park Service [NPS] 1995). If it is found to possess integrity, then one of the following criteria must be met:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinct characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded or may be likely to yield, information important in prehistory or history.

Watmaugh Bridge retains a high degree of integrity in all aspects. The location, setting, and feeling are relatively unchanged, and physical alterations are limited to replacement of lattice rails with the existing metal beam rails. Therefore, its eligibility for inclusion on the National Register was considered in terms of Criterion A and Criterion C.

The Watmaugh Road Bridge is a locally important historic property associated with Sonoma County's efforts to create a modern road system during the early twentieth century; however, it was not found to be a particularly important element of the modernization plan as required under Criterion A. Moreover, this bridge is not an especially good example of a Warren truss bridge and does not meet Criterion C. The Watmaugh Road Bridge does not meet criteria for inclusion on the National Register.

CONTINUATION SHEET

Primary #

HRI # 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date: January 2001

Page 4 of 5

Recorded by: V.R. Beard

B12. References: (Continued from page 2)

Archer, P. and S. Lamp

1978 Historic Resources Inventory form for Watmaugh Bridge. On file at the Northwest Information Center, Rohnert Park.

California Department of Transportation (Caltrans)

1984 Truss Bridge Rating Sheet. On file with the California Department of Transportation, District 4, Oakland.

1985 *Historic Truss Bridges in California: Request for Determination of Eligibility*. California Department of Transportation, Sacramento.

1987 *Caltrans Local Bridge Survey*. Structures Maintenance System. HSLALL, Historical Significance, Local Bridge.

1990 *Historic Highway Bridges of California*. California Department of Transportation, Sacramento.

Harris, D.

1993 Historic Resources Inventory Form for the Sonoma County Bridges Thematic District. On file with the Sonoma County Landmarks Commission, Santa Rosa.

National Park Service

1995 *How to Apply the National Register Criteria for Evaluation*. National Register Bulletin 15. U.S. Department of the Interior, Washington, D.C.

Niles, K.

1981 Letter from Kenneth Niles to Donald B. Head, Director, County of Sonoma Public Works. On file with the Sonoma County Landmarks Commission.

Peugh, E.

1929 Bridge over Sonoma Creek at Hopke Ranch. On file at Sonoma County Public Works Map Room (File No. 004038).

Reynolds W. and T. Proctor

1898 *Illustrated Atlas of Sonoma County, California*. Reynolds and Proctor, Santa Rosa.

Sonoma County Board of Supervisors

1891a Petition to the Board of Supervisors for a bridge over Sonoma Creek. Road book 4; pages 375-377.

1891b Award of contract for construction of bridge over Sonoma Creek. Petition to the Board of Supervisors for a bridge over Sonoma Creek. Road book 4; pages 382-384.

1929 Award of contract to W.L. Proctor for construction of a truss bridge on Sonoma Creek. General Minutes of the Board of Supervisors book 28; page 61.

1939 General Index to Minutes of the Board of Supervisors: 1883-1939. On file at the Sonoma County Board of Supervisors Chambers, Santa Rosa.

1998 Ordinance No. 5985. Summary ordinance to change zoning districts of property.

Sonoma League for Historic Preservation

1979 *Valley of the Moon, Sonoma County, California: Historic Resources Survey*. On file at the Northwest Information Center, Rohnert Park.

Thompson, T.H. & Co.

1877 Historical Atlas Map of Sonoma County, California. T.H. Thompson & Co., Oakland.

LOCATION MAP

Page 5 of 5

Map Name: Sonoma

Scale: 7.5'

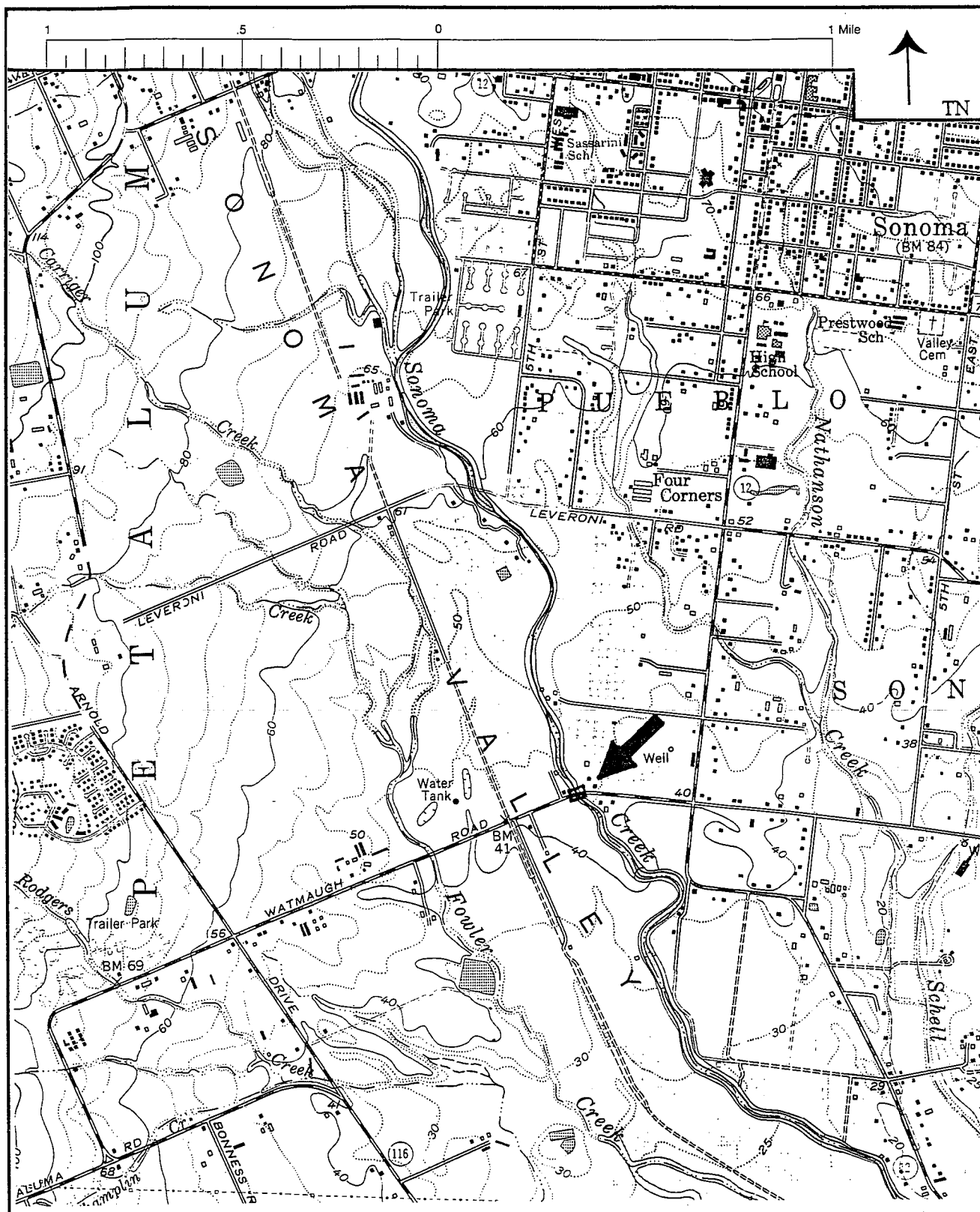
Primary #

HRI # 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date of Map: 1951 (Photorevised 1980)



PRIMARY RECORD

Primary # P-49-0002867 (SUPPLEMENT)
HRI # 5476-0255-0000
Trinomial:
NRHP Status Code: 3CS
Resource Name or #: Watmaugh Road Bridge

Other Listings:

Review Code:

Reviewer:

Date:

Page 1 of 13

P1. Other Identifier: Bridge 20C-0017

P2. Location: Unrestricted
b. USGS 7.5' Quad: Sonoma
T N/R W; 1/4 of 1/4 of Sec. ; MDBM1980
c. Address: **City:** **Zip:**
d. UTM: Zone: 10 **546700 mE** **4235260 mN**
e. Other Locational Information:

P3a. Description: The Watmaugh Road Bridge is a three-span, pony truss bridge measuring 170 feet long and 24 feet wide. The main span is 102 feet long and is a steel, pony truss with a concrete deck. The superstructure is comprised of a Warren polygonal truss. Presently, the main span has steel beam guardrails, and it is flanked by reinforced concrete approach spans with cast concrete rails. The approaches measure 38 feet on the west and 29 feet on the east. The bridge is supported by concrete abutments and two concrete piers. There is no walkway or lighting.

The Watmaugh Road Bridge was designed by Sonoma County Surveyor, E.A. Peugh in 1929, and the contractor was W.L. Proctor. The bridge is situated in its original location and the surrounding area remains rural agricultural land much as it was in 1929 when the bridge was built. Its design is unaltered except for the replacement of its original steel lattice guardrails with steel beam rails. Sonoma County recognizes the importance of the bridge as a contributor to a County Historical Bridge District (Harris 1993).

P3b. Resource Attributes: HP19 (Bridge)

P4. Resources Present: Structure

P5. Photograph or Drawing:
Bridge.

P5b. Description of Photo: Southern truss of the Watmaugh Road



P6. Date Constructed/Age and Sources:
1929 (county records)

P7. Owner and Address:
County of Sonoma
2550 Ventura Ave.
Santa Rosa, CA 95403

P8. Recorded by:
V. Beard
Tom Origer & Associates
P.O. Box 1531
Rohnert Park, CA 94927

P9. Date Recorded:
May 2012

P10. Type of Survey:
Property specific

P11. Report Citation: Beard, V.

2012 Letter report of findings regarding the Watmaugh Road Bridge over Sonoma Creek, Sonoma County, California.

P12. Attachments: Building, Structure, and Object Record; Continuation Sheets; Location Map

CONTINUATION SHEET

Primary #: P-49-0002867 (SUPPLEMENT)
HRI #: 5476-0255-0000
Trinomial:
Resource Name or #: Watmaugh Road Bridge
Date: May 2012

Page 2 of 13
Recorded by: V. Beard

P3a. Description: (continued from page 1)



Figure 1. View across the bridge, facing west.



Figure 2. Cast concrete rails used on the approach.

BUILDING, STRUCTURE, AND OBJECT RECORD

Primary # P-49-0002867 (SUPPLEMENT)
HRI # 5476-0255-0000
NRHP Status Code:
Resource Name or #: Watmaugh Road Bridge

Page 3 of 13

- B1. Historic Name:** Hopke Bridge
- B2. Common Name:** Watmaugh Road Bridge
- B3. Original Use:** Highway bridge
- B4. Present Use:** Highway bridge
- B5. Architectural Style:** Warren pony truss with polygonal top chord
- B6. Construction History:** The original steel lattice rails were replaced by steel beam guardrails prior to 1981.
- B7. Moved?** No **Date:** NA **Original Location:** NA
- B8. Related Features:**
- B9a. Architect:** E.A. Peugh, Sonoma County Surveyor **B9b. Builder:** W.L. Proctor
- B10. Significance:** **Theme:** Sonoma County Truss Bridges **Area:** Sonoma County
Period of Significance: 1880 to 1950
Property Type: Truss Bridge
Applicable Criteria: 1 and 3

Context Statement

In 1999, an evaluation was completed for the Watmaugh Road Bridge assessing its eligibility for inclusion on the National Register of Historic Places (Beard 1999). The bridge was considered not eligible for the National Register. That determination was guided primarily by the Caltrans bridge survey of 1987, and was based on highway bridges statewide rather than the importance of such resources at the local level. Caltrans prepared an updated bridge survey in 2004, and the Watmaugh Road Bridge continues to be listed as not eligible for the National Register (Hope 2004).

This evaluation addresses the bridge's importance *vis-a-vis* the California Register of Historical Resources eligibility criteria, and focuses on the Watmaugh Road Bridge as a locally important resource. Therefore, the historic context is expanded to address the status of metal truss bridges in Sonoma County, not just those built under the previous context of Sonoma County's 1919 Highway Modernization Plan, and a longer period of significance is defined to capture all metal truss highway bridges in the county. (See Continuation Sheet page 4)

B11. Additional Resource Attributes:

B12. References:
See Continuation Sheet page 10

B13. Remarks:

B14. Evaluator: V. Beard
Date of Evaluation: May 2012

North ↑



CONTINUATION SHEET

Primary #: P-49-0002867 (SUPPLEMENT)

HRI #: 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date: May 2012

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Recorded by: V. Beard

Context Statement

Sonoma County Truss Bridges

Sonoma County bridges take many forms and represent a variety of construction techniques and materials. By far the largest subset is comprised of reinforced concrete bridge, while metal truss bridges are poorly represented in the county, numbering 17 in all. There are three additional bridges in Sonoma County that technically fall into the truss category. These bridges, commonly known as "Bailey bridges," are constructed of interchangeable truss panels, and generally are considered temporary structures. The three Bailey bridges and a temporary summer crossing truss constructed in 1993 are not included in the discussion of truss bridges that follows.

Sonoma County's steel truss bridges reflect various phases of the County's development and the development of its transportation network. They also reflect technological developments affecting transportation both state and nationwide during the early twentieth century. The following table summarizes extant highway truss bridges in Sonoma County.

<u>Time Frame</u>	<u>Era</u>	<u>Bridge</u>	<u>Type</u>
Pre-1900	Railroad	Haupt Creek	Pratt through
		Big Sulphur Creek	Pratt through
1900 to 1919	Railroad	Clarks Crossing	Parker through
	Early Roads	Hacienda Bridge	Parker through
		Lambert Bridge	Parker through
1919 to 1933	County Plan	Healdsburg Bridge	PA Petit through
		Wohler Road	Parker through
		Guerneville Bridge*	Parker through
		Austin Creek/Duncans Grade	Pratt through
		Watmaugh Road	Warren pony
		Arnold Drive	Parker through
1933 to 1950	State Support	D Street Bridge (basculer)**	Warren variation
		Monte Rio Bridge	Pratt pony
		Westside Road	Pratt pony
		Crocker Road	Warren pony
		Austin Creek/Old Duncan's Grade	Pratt through
		Jimtown Bridge	Cantilever pony

* State Highway Bridge

** Funded by the City of Petaluma

On a regional scale, Caltrans (1985) prepared a context for evaluating metal truss bridges in California, and locally, historian Dennis Harris (1993) identified issues regarding metal truss bridges in Sonoma County. These documents were used as guides during this evaluation. Primary research conducted during this study adds to the body of knowledge concerning Sonoma County truss bridges, and updates information regarding these bridges.

The earliest existing metal truss bridges in Sonoma County date to the late nineteenth century and were constructed as railroad bridges. The Haupt Creek Bridge and the Big Sulphur Creek Bridge both originated as parts of a Northwest Pacific Railroad (NPR) bridge over the Russian River near Northwood. The NPR bridge had three Pratt through truss spans, each measuring 130 feet long. The Phoenix Bridge Company built the bridge using their patented Phoenix column in its construction. Caltrans' survey of state bridges found four extant Phoenix bridges, three of which are the reused spans of the Russian River NPR bridge: the fourth crosses Burger Creek in Mendocino County.

CONTINUATION SHEET

Primary #: P-49-0002867 (SUPPLEMENT)

HRI #: 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date: May 2012

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Recorded by: V. Beard

Early twentieth-century railroad bridges are also represented in Sonoma County's remaining truss bridges. The current Hacienda Bridge over the Russian River was built in 1914 (Harris 1993b), replacing a Pratt combination truss, itself having replaced a deteriorated, wooden Howe through truss structure in 1891 (Burgin 1891 reprinted in Kneiss 1956:147-151). The bridge over the Wheatfield Fork of the Gualala River at Clarks Crossing might also be a relocated railroad bridge. No records have been located regarding its construction. Caltrans estimated a construction date of 1909.

There remains one metal truss bridge in Sonoma County dating to the early phase of county road development, and it crosses Dry Creek northwest of Healdsburg. Lambert Bridge was built by the American Bridge Company and was constructed at its present location in 1915. This Parker through truss structure is the earliest truss bridge still standing in Sonoma County that was built as a roadway rather than a railway bridge.

In 1919, a bond measure was passed by the Sonoma County Board of Supervisors, and subsequently by popular vote, funding modernization of the county road system. The proposed roads would link Sonoma, Petaluma, Valley Ford, Bodega Bay, and north to the Mendocino County Line; Santa Rosa, Sebastopol, Freestone, and Valley Ford; Healdsburg, Forestville, Guerneville, and Jenner; Healdsburg to the Napa County Line; Cotati, Sebastopol, and Forestville; and Graton and Occidental. The improvements plan included construction of several new bridges and replacement of others. Six of the eighteen existing truss bridges in Sonoma County were built under this plan. The majority of these six was completed during the nine-year period preceding 1930. Only two of the remaining truss bridges were built under the County plan during the early 1930s. The "D" Street Bridge in Petaluma was constructed in 1933 and it is unique in two respects. It was funded by the City of Petaluma "in conjunction with a Corps of Engineers river improvement project" (Peterson 1978:20), and it is a single-leaf bascule bridge, the only moveable truss bridge in Sonoma County.

During the first years of the Great Depression, the County stuck to its road projects but the County's ability to complete its projects was severely hindered as the decade progressed. In 1933, the State took control of much of the County's road system, including portions of present-day State Highways 1, 12, 116, and 128. Four of the extant truss bridges were constructed after that date.

Through-truss bridges of the Parker style are the best represented of the extant truss bridges in Sonoma County. Pratt-style through-truss bridges are the second most frequent type, followed by Pratt pony trusses. In 1985, when the Caltrans bridge survey was completed, Sonoma County had four Warren truss bridges, in addition to the Warren variation bascule bridge in Petaluma. Two were through trusses, which have since been demolished. The two pony truss bridges have survived. Below is a summary of the types of highway truss bridges remaining in Sonoma County.

<u>Design</u>	<u>Roadway</u>	<u>Number</u>
Parker	Through	6
Pratt	Through	4
Pratt	Pony	3
Warren polygonal	Pony	2
Warren variation (bascule)	Pony	1
Pennsylvania Petit	Through	1
Cantilever	Pony	1

The Truss Bridge

In the United States, truss bridges of wood date to the late 18th and early 19th centuries. In 1840, William Howe patented a bridge that incorporated both wood and iron in its design, quickly leading to trusses made exclusively of metal. Significant use of metal truss bridges in the United States began after the Civil War with the expansion of the railroad industry and the need for bridges to span ever increasing distances and carry heavier loads. Metal truss bridges were adopted for roadways during the 1870s as nation's road system grew.

A metal truss bridge is a bridge whose supporting structure consists of a network of beams in a series of triangular sections. The manner in which the triangles are formed and interact is the basis of distinction for the many types of truss bridges. Figure 3 depicts a variety of truss styles.

CONTINUATION SHEET

Primary #: P-49-0002867 (SUPPLEMENT)

HRI #: 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date: May 2012

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Recorded by: V. Beard

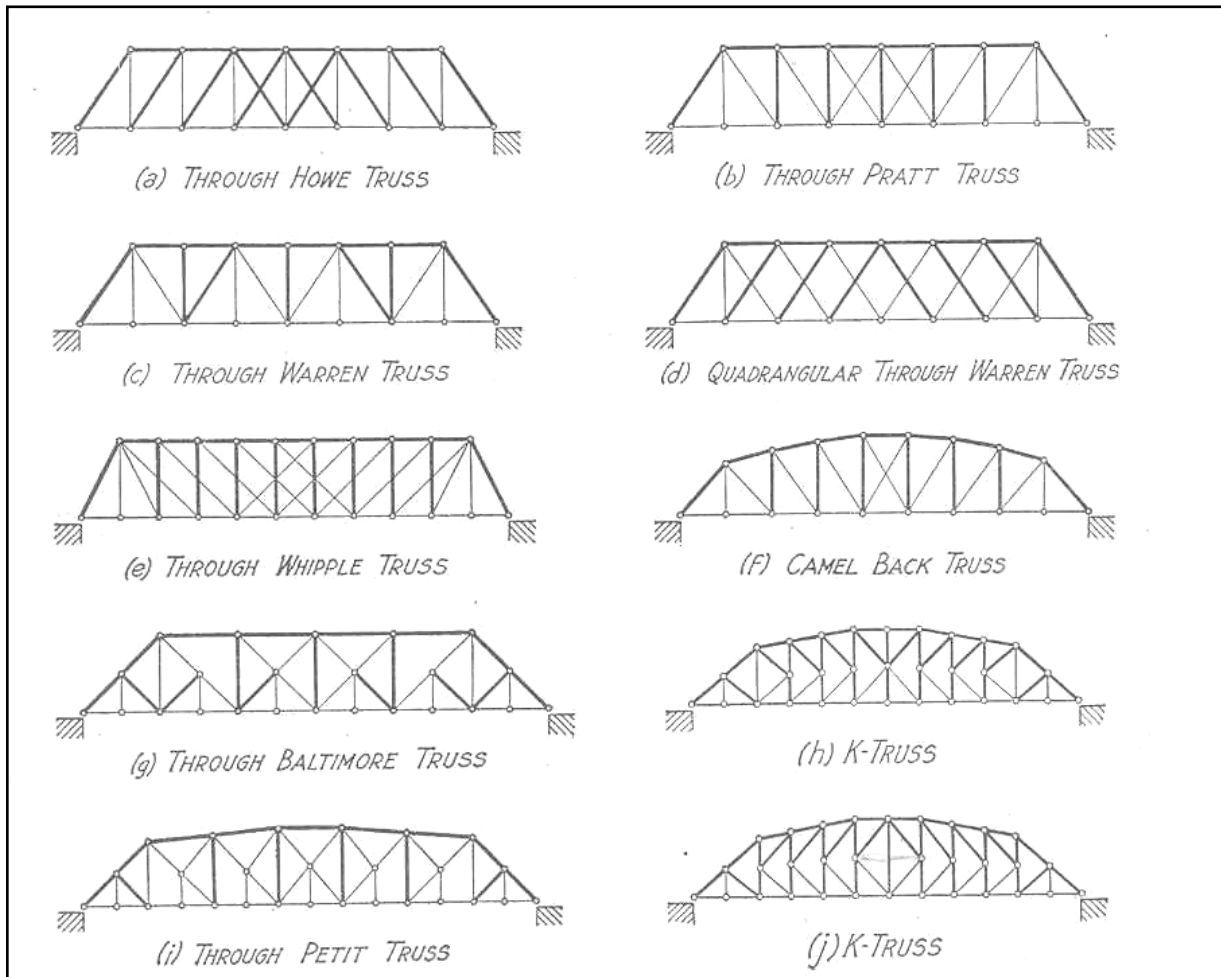


Figure 3. Common variations of truss bridges.

The principle upon which all trusses rely is that the triangle is the strongest and most rigid geometric figure. By arranging the framework of triangles in patterns that varied from designer to designer, the structure acquired different appearances and served different purposes depending on the needs of bridge builders. The pony truss, the smallest type and ordinarily confined to lengths under 140 feet, with most under 100 feet, is distinguished by its low profile and absence of bracing above the roadway. The through truss by comparison is greater in length and height and consists of a tunnel-like structure that carries traffic through a system of overhead bracing which ties together the upper chords of the bridge [King 1993].

In 1848, James Warren and Willoughby Monzani patented a bridge design configured as repeating equilateral triangles (Figure 3c). This British-patented bridge was common in England, and pre-fabricated versions were used in British colonies (Guiss 2006). The Warren truss was a relatively light truss due to its configuration of longitudinal members joined by angled cross-members that form alternating, inverted, equilateral triangles over the length of the truss. This configuration ensures that no individual strut, beam, or tie is subject to bending or straining forces, but only to tension or compression. Loads on the diagonals alternate between compression and tension (approaching the center), with no vertical elements, while elements near the center must support both tension and compression in response to live loads. This configuration combines strength with economy of materials and can therefore be relatively light.

CONTINUATION SHEET

Primary #: P-49-0002867 (SUPPLEMENT)

HRI #: 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date: May 2012

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Recorded by: V. Beard

Truss bridges would eventually give way to the reinforced concrete bridge, the first of which was constructed in San Francisco in 1889. By the turn of the twentieth century, the concrete bridge was a dominant bridge-form nationwide. Historically, concrete bridges were most often used for smaller spans that lacked the engineering challenges presented by larger ones. Ease of design and construction made the concrete bridge especially attractive to local governments. They were usually designed by county surveyors and state engineers, and are cited by Caltrans (1990:78) as "probably the most common bridge type built on California highways."

The Watmaugh Road Bridge

The creek crossing at Watmaugh Road was a ford until the 1890s when, at the behest of local residents, the County financed construction of a wooden bridge (Sonoma County Board of Supervisors [SCBS] 1891a). The Watmaugh Road crossing provided a more direct link to the south end of Sonoma and the lower Broadway area. The contract for construction of the bridge was awarded to the King Iron Bridge Manufacturing Company in 1891 for \$2,730.00 (SCBS 1891b). Under the 1919 Highway Modernization Plan, the County opted to replace the original bridge over Sonoma Creek. New plans were drawn for a steel truss bridge by County Surveyor, E.A. Peugh in 1927, and the construction contract went to W.L. Proctor for \$14,783.00 (SCBS 1929).

The bridge designer, E.A. Peugh, grew up in West Sonoma County and worked on the family farm as a teenager (United States Bureau of Census [USBC] 1900). During the early 1900s, Peugh married Georgia Guerne of the Russian River lumbering family. He and Georgia stayed in West County for a while, and Edward worked as a grocery clerk in the Guerneville area (USBC 1910). By 1918, the Peugh's had moved to Santa Rosa, where Edward worked for the County as a surveyor (Ancestry.com 2005).

In 1922, Edward A. Peugh ran unopposed for the position of County Surveyor, replacing R. Press Smith, who had held the position for three years. Peugh's was the last election held for county surveyor; thereafter, it was an appointed rather than an elected position. Peugh served as County Surveyor from 1922 until his death in 1937.

Contractor, W.L. Proctor was born in Wisconsin and, like Peugh, worked on the family farm as a young man. A review of voter registration shows that, upon his arrival in California (c.1890), Proctor worked as a telegrapher operator in Bodega in 1892, and was a merchant in Marin County and San Francisco in 1896 and 1898, respectively (Ancestry.com 2011). He seems to have settled in Sonoma County at the beginning of the 1900s as census reports for 1910 through 1930 enumerate him and his family in Bodega and Santa Rosa during that time frame (USBC 1910, 1920, 1930). Proctor's name is found in association with several construction projects as early as 1917 (American Association for Highway Improvements 1917; *Domestic Engineering* 1919:42; *Municipal Engineering* 1917:222, 322).

The Watmaugh Road Bridge is a three-span, pony truss bridge measuring 170 feet long and 24 feet wide (Figure 4). The main span is 102 feet long and is a steel, pony truss with a concrete deck. The superstructure is comprised of a Warren polygonal truss. Presently, the main span has steel beam guardrails, and it is flanked by reinforced concrete approach spans with cast concrete rails. The approaches measure 38 feet on the west and 29 feet on the east. The bridge is supported by concrete abutments and two concrete piers. There is no walkway or lighting.

Statewide, Caltrans found Warren truss bridges to be numerous (Caltrans 1990); however, in Sonoma County the Watmaugh Road Bridge is one of only two remaining fixed Warren trusses. Moreover, it was one of the last bridges constructed under the County's road improvement plan of 1919. The other extant Warren truss, the Crocker Road Bridge in Cloverdale, was built in 1938. Writing in their request for a determination of eligibility for historic truss bridges, Caltrans personnel note that 1920s truss bridges are underrepresented in the nomination as it was "a slow period in the construction of truss bridges in California" (Caltrans 1985:12).

Sonoma Valley citizens consider the Watmaugh Road Bridge an important local landmarks, a fact demonstrated in the late 1970s and early 80s when a replacement bridge was under consideration. A citizens group fought to preserve the bridge, considered to have "...considerable character, which cannot be said of the two bridges recently constructed on Highway 121 and on Leveroni Road" (Niles 1981). The Committee for the Preservation of Watmaugh Road Bridge was joined in its efforts by the Sonoma League for Historic Preservation and other citizens groups, and subsequently the bridge was granted county landmark status in 1981.

CONTINUATION SHEET

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Primary # P-49-0002867 (SUPPLEMENT)
Resource Name or #: Watmaugh Road Bridge

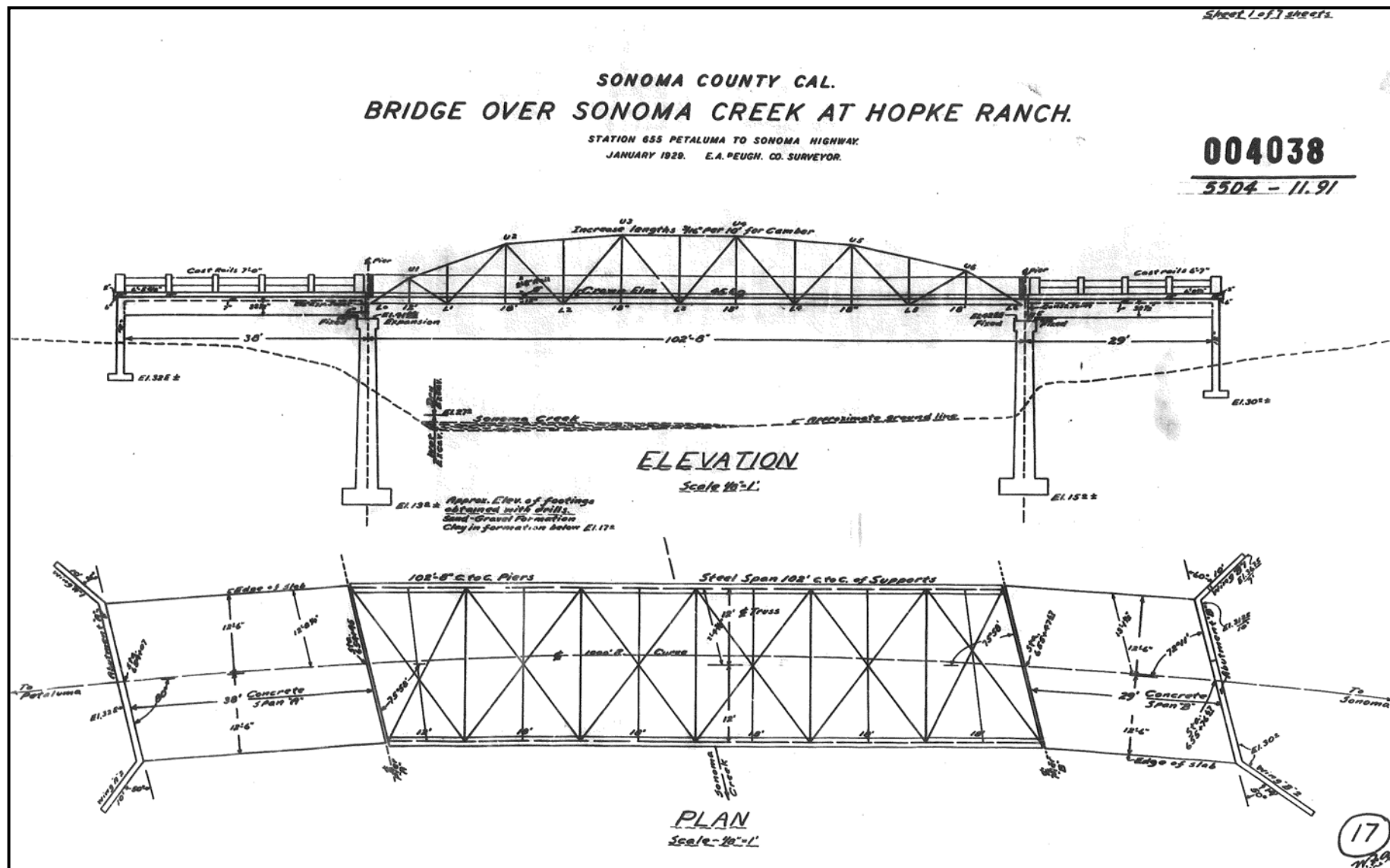


Figure 4. Original plans drawn by Edward A. Peugh.

CONTINUATION SHEET

Primary #: P-49-0002867 (SUPPLEMENT)

HRI #: 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date: May 2012

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Recorded by: V. Beard

B10. Significance: (Continued)

The following decade, Sonoma County began efforts to establish a thematic district of historic bridges. Harris (1993) summarized information from the Caltrans bridge survey and developed a context specific to Sonoma County bridges. In 1998, the Sonoma County Board of Supervisors voted to establish the district. Ten contributing bridges were rezoned as HD (historic district) properties at that time. Watmaugh Road Bridge and Calabazas Creek Bridge were previously rezoned HD properties and they are considered contributors to the district.

Statement of Significance

This building was evaluated for inclusion on the California Register of Historical Resources (California Register). Briefly, a resource eligible for the California Register is one that meets one of the following criteria.

1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. Is associated with the lives of persons important to local, California, or national history.
3. Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of a master, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, eligibility to the California Register requires that a resource retain sufficient integrity to convey a sense of its significance or importance. As defined by the State, "Integrity is the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (California Office of Historic Preservation 2001:11). Seven elements are considered key in considering a property's integrity: location, design, setting, materials, workmanship, feeling, and association.

The following conclusions were reached regarding the property's eligibility for the California Register as an individual resource:

Criterion 1. The Watmaugh Road Bridge is representative of a period in California's history when construction of truss bridges was in decline, and it is illustrative of a vanishing bridge form in Sonoma County. The bridge was part of a countywide highway plan approved by the county supervisors and voters in 1919 and designed to modernize the county transportation system. The bridge represents an important aspect of the area's growth and development and, in particular, the County's initial efforts to modernize its transportation system. This structure meets Criterion 1.

Criterion 2. The two individuals directly associated with the bridge were E.A. Peugh and T.L. Proctor. As the County Surveyor, Peugh was the lead designer for most of the County's infrastructure projects between 1922 and 1937. This was a common function of county surveyors/engineers during the early 20th century. Neither he nor his body of work is particularly notable. Proctor was granted many local contracts during the early to mid-part of the 20th century, many of which were in support of city and county projects, including roads, bridges, and asphalt plants. Other than his involvement in local construction projects, Proctor was not historically important and his buildings and structures are not considered notable. Because no especially important people are associated with the Watmaugh Road Bridge, Criterion 2 is not met.

Criterion 3. The Watmaugh Road Bridge is a Warren pony truss, of which there were many constructed in the United States during the late 19th and early 20th centuries. This structure is not a distinctive example of the style, but it is one of only two left in Sonoma County. Rarity of the style lends this bridge importance under Criterion 3, as it does embody the characteristic of a type and period of construction. It is not the work of a master bridge builder. Neither Peugh nor Proctor was noted for their design or construction of bridges. This bridge was built for function rather than for artist merit. This structure meets Criterion 3.

Criterion 4. This property does not meet Criterion 4. Criterion 4 generally applies to archaeological resources that could yield important analytical data relating to prehistory or history.

CONTINUATION SHEET

Primary #: P-49-0002867 (SUPPLEMENT)

HRI #: 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date: May 2012

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Recorded by: V. Beard

Integrity Issues

The Watmaugh Road Bridge retains a high degree of integrity in all aspects. The location, setting, and feeling are relatively unchanged, and physical alterations are limited to replacement of lattice rails with the existing metal beam rails.

Conclusion

The Watmaugh Road Bridge is a locally important historic property associated with Sonoma County's efforts to create a modern road system during the early twentieth century. In addition, in terms of Sonoma County's bridge inventory it is a rare type of metal truss bridge. Based on the above discussion and the retention of integrity, it appears that the Watmaugh Road Bridge is eligible for inclusion on the California Register under Criteria 1 and 3.

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CONTINUATION SHEET

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HRI #: 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date: May 2012

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CONTINUATION SHEET

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LOCATION MAP

Primary # P-49-0002867 (SUPPLEMENT)

HRI # 5476-0255-0000

Trinomial:

Resource Name or #: Watmaugh Road Bridge

Date of Map: 1980

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Map Name: Sonoma

Scale: 7.5'



**Cultural Resources Analysis of
Proposed Alternatives to the Watmaugh Road
Bridge Replacement Project**

Janine M. Loyd, M.A.

September 4, 2012

Abstract

The County of Sonoma Transportation and Public Works Department proposes to replace the Bridge carrying Watmaugh Road over Sonoma Creek in an unincorporated portion of the county near the City of Sonoma. The proposed project would replace the existing with a new bridge in the same location, using trusses from the current bridge on the new bridge, and install guard rail lattice similar to the original bridge. Seven alternatives to the proposed project are being considered.

Alternatives:

- 1) Replace the existing bridge with a Concrete Arch Truss: remove the existing bridge and replace with new bridge of a concrete arch design (with no reuse of elements of existing bridge)
- 2) Rehabilitate the existing bridge: this work entails a seismic retrofit with new concrete foundation piers, encasing the bridge truss with new structural steel and removing all rust and coating the steel for rust resistance.
- 3) Seismic retrofit the existing bridge: this work entails new isolator bearings and structural steel in the cross beams and truss; the concrete foundations would be replaced or augmented to rectify scour problem under the existing bridge.
- 4) Construct a parallel bridge downstream – leave existing bridge, construct new bridge downstream approximately 20 feet from existing. Leave existing bridge in place.
- 5) Parallel bridge upstream: same as downstream only vineyard removed and road comes very close to a residence.
- 6) Rehabilitate the existing bridge and add a parallel bike/pedestrian bridge.
- 7) Rehabilitate the existing bridge (same as #2) and add a one-way bridge for traffic and Bikes/Pedestrians downstream.

Introduction

This report describes potential impacts to the historical significance of the bridge carrying Watmaugh Road over Sonoma Creek. The County of Sonoma Department of Public Works proposes to replace the bridge carrying Watmaugh Road over Sonoma Creek. The County has several objectives for the bridge replacement including:

Project Objectives:

- Eliminate structural deficiencies and increase load limits.
- Incorporate modern seismic standards.
- Provide standard shoulder width that would accommodate large loads and minimize frequent collisions with guard railing.
- Provide improved road alignments and site distance.
- Eliminate the risk crack induced failure of non-redundant structural components of the bridge that could result in failure (also called “fracture critical” condition).

The current bridge is a County Landmark (#103) and is a contributor to a countywide historical bridge district; it appears to be eligible for inclusion on the California Register of Historical Resources under Criterion 1 and Criterion 3 (Beard 2012).

The character defining feature of the bridge is its Warren pony truss design, one of two Warren truss bridges remaining in Sonoma County. Further, it was built at a time of growth and development in the county, and represents an intentional push by County government to modernize the transportation system.

Nine alternatives were analyzed for the potential to cause impacts to the bridge's historical significance. Under CEQA, if a project will cause a substantial adverse change in the significance of an historical resource, this is considered a potentially significant impact.

Alternatives

1- Proposed Project

The proposed project would remove the existing bridge and construct a replacement bridge within the approximate alignment of the existing bridge. The pony truss structure of the existing bridge would be retained, cleaned, recoated, and attached to the new bridge as an architectural element.

Impacts

The current bridge is a County Landmark, and appears eligible for inclusion on the California Register of Historical Resources. Removing the bridge would be an adverse change to the bridge's significance as an historical resource. Because the bridge would no longer be present, it could not be a significant historical resource. Further, a part of the bridge's significance is based on the fact that it is a Warren truss bridge. While the reuse of the existing trusses as a decorative element in the proposed bridge could be aesthetically acceptable, it would not convey the importance of the truss bridge as an important stage in the development of modern bridges, and would reduce the number of Warren truss bridges in the County to a single example.

Mitigation

There is no accepted standard of mitigation for the destruction of an historical resource. However, if a resource will be demolished it is general practice to compile clear and complete documentation regarding the history, design and construction of the resource. Typically the standard for such documentation is the Historic American Engineering Record.

2- No Project

Under the No Project Alternative, the existing bridge would not be replaced. The bridge would be maintained to allow for its continued use. At some undetermined point in the future, the costs to maintain the bridge may require the closure, as County funds allow, until a point that may require closure of the bridge permanently, as the bridge continues to degrade or becomes a safety concern for motorists.

Impacts

There would be no direct impact to the bridge as an historical resource under this alternative. Indirect impacts resulting from continued use of the bridge under loads that it was not designed to carry, and from continued structural decline, could occur.

Mitigation

On-going maintenance of the bridge will reduce the indirect impacts resulting from implementing this alternative.

3- Construction of a Downstream Bridge Leaving Existing Bridge In Place

The existing bridge would be left in place and access will be considered for the public to view the Landmark and for pedestrian and bikeway purposes. A new bridge for vehicle traffic would be constructed adjacent to and downstream of the existing bridge.

Impacts

This alternative would alter the bridge's setting, which would be an impact to the integrity of the bridge. However, the remaining elements of historical integrity (location, design, materials, workmanship, feeling, and association) would remain intact.

Mitigation

The alteration to the setting of the bridge can be reduced by retaining as much of the riparian area between the two bridges as possible. This will reduce the visual impact of the new construction from the existing bridge.

4- Replace Existing Bridge with Arch Truss Bridge

The existing bridge would be removed, and a concrete arch bridge would be constructed in its place.

Impacts

Removing the bridge would be an adverse change to the bridge's significance as an historical resource. Because the bridge would no longer be present, it could not be a significant historical resource.

Mitigation

There is no accepted standard of mitigation for the destruction of an historical resource. However, if a resource will be demolished it is general practice to compile clear and complete documentation regarding the history, design and construction of the resource. Typically the standard for such documentation is the Historic American Engineering Record.

5- Seismic Retrofit Existing Bridge

This alternative would include a replacement of the bridge deck strengthening the existing abutments and trusses, and replacing or strengthening the existing piers. A seismic retrofit would not meet any of the objectives of the proposed project, however, it would retain the existing bridge.

This alternative retains the existing bridge, the bridge appearance will not be altered in a noticeable way. Most of the retrofit work will occur on the underside of the bridge, and on the piers, which are not visible to motorists.

Impacts

No impacts to the historical significance of the bridge would occur under this alternative. However, because this work would involve reinforcement of the historic structure, the work

should be completed using the Secretary of the Interior's Standard for Restoration of Historic Structures.

6- Rehabilitate Existing Bridge

This alternative would consist of replacing the existing piers, and adding structural steel over the existing steel lattice work of the trusses, essentially boxing in the trusses in new steel.

Although this alternative retains the existing bridge, the bridge appearance will be altered substantially.

Impacts

This alternative would result in substantial adverse impact to the historical significance of the bridge. This alternative requires changes in the integrity of materials, workmanship, and feeling of the bridge.

Mitigation

There is no accepted standard of mitigation for the destruction of an historical resource. The impact to the historical significance of the bridge can be mitigated by compilation of clear and complete documentation regarding the history, design and construction of the resource. Typically the standard for such documentation is the Historic American Engineering Record.

7- Construct Parallel Bridge Upstream, Existing Bridge to Remain

This alternative would construct a new concrete bridge upstream of the existing bridge. In order to avoid the existing bridge and provide adequate sight distance, the road approaches to the bridge would consist of long sweeping curves.

The existing bridge will be closed to all traffic, bikes and pedestrians. The bridge will receive minimal maintenance to keep it intact as a County Landmark.

Impacts

This alternative would alter the bridge's setting, which would be an impact to the integrity of the bridge. However, the remaining elements of historical integrity (location, design, materials, workmanship, feeling, and association) would remain intact.

Mitigation

The alteration to the setting of the bridge can be reduced by retaining as much of the riparian area between the two bridges as possible. This will reduce the visual impact of the new construction from the existing bridge.

8- Rehabilitate Existing Bridge and Add a Parallel Bike/Ped Bridge Up or Downstream

This project would rehabilitate the existing bridge (see discussion above regarding rehabilitation) and construct a separate bike/pedestrian crossing. This bridge could be placed either upstream or downstream.

As described above, the rehabilitation of the existing bridge substantially alters its appearance and characteristics. The construction of an upstream or downstream bike/pedestrian bridge further degrades the visual character of the bridge by altering its setting.

Impacts

This alternative would result in substantial adverse impact to the historical significance of the bridge. This alternative requires changes in the integrity of setting, materials, workmanship, and feeling of the bridge.

Mitigation

There is no accepted standard of mitigation for the destruction of an historical resource. The impact to the historical significance of the bridge can be mitigated by compilation of clear and complete documentation regarding the history, design and construction of the resource. Typically the standard for such documentation is the Historic American Engineering Record.

9- Rehabilitate Existing Bridge and Add a One-Way Bridge for Traffic and Bike/Peds Downstream of Existing Bridge

This project would rehabilitate the existing bridge (see discussion above regarding rehabilitation) and construct a 21-foot wide one lane bridge for a single lane for eastbound traffic and a shoulder for bike/pedestrians.

As described above, the rehabilitation of the existing bridge substantially alters its appearance and characteristics. The construction of a downstream bike/pedestrian bridge further degrades the visual character of the bridge by altering its setting.

Impacts

This alternative would result in substantial adverse impact to the historical significance of the bridge. This alternative requires changes in the integrity of setting, materials, workmanship, and feeling of the bridge.

Mitigation

There is no accepted standard of mitigation for the destruction of an historical resource. The impact to the historical significance of the bridge can be mitigated by compilation of clear and complete documentation regarding the history, design and construction of the resource. Typically the standard for such documentation is the Historic American Engineering Record.

Discussion

With the exception of the No Project and Seismic Retrofit alternatives, each of the alternatives under consideration will have adverse impacts to the historical significance of the bridge. However, neither of those alternative meet the objectives of the project.

The least impact to the historical significance of the bridge, while still meeting some or all of the County's objectives, are those involving construction of a parallel bridge, either upstream or downstream of the existing bridge, while the existing bridge is retained.

Alternatives with the greatest adverse impact to the historical significance of the bridge would be those where the existing bridge is removed. The alternatives where rehabilitation of the existing bridge is proposed would be almost as detrimental as the outright removal.

APPENDIX G NOISE REPORT

*Watmaugh Road Bridge Replacement Project, Sonoma County, CA – Traffic Noise Modeling
Results for New Bridge Alternative*
Llingworth & Rodkin, Inc., September 5, 2012

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

505 Petaluma Boulevard South
Petaluma, California 94952

Tel: 707-766-7700
www.illingworthrodkin.com

Fax: 707-766-7790
illro@illingworthrodkin.com

September 5, 2012

Chris Seppeler
Senior Environmental Specialist
Sonoma County Permit and Resource Management Department (PRMD)
2550 Ventura Avenue
Santa Rosa, CA 95403-2829

VIA E-MAIL: Chris.Seppeler@sonoma-county.org
 Rich.Stabler@sonoma-county.org

**SUBJECT: Watmaugh Road Bridge Replacement Project, Sonoma County, CA –
 Traffic Noise Modeling Results for New Bridge Alternative**

Dear Chris:

This letter summarizes the results of the traffic noise modeling completed for the Watmaugh Road Bridge Replacement Project in Sonoma County, California. One alternative being considered by the County is the construction of a new bridge downstream of the existing bridge. Illingworth & Rodkin, Inc. (I&R) reviewed the preliminary plan dated April 20, 2011 showing the proposed alternative, modeled traffic noise levels in order to calculate the relative change in noise levels expected with the project, and assessed noise levels with respect to County standards. Where impacts were identified, mitigation was recommended to reduce potential noise impacts from this project alternative to less than significant levels.

Project Description

The purpose of the project is to provide a road crossing over Sonoma Creek that meets modern design standards and accommodates local and regional transportation needs. The existing pony truss bridge was constructed in 1929 and is approaching the end of its service life. Due to the age of the bridge, and channel changes since original bridge construction, the existing structure has a number of deficiencies. In order to avoid impacts to the existing 1929 bridge, one alternative would construct a replacement bridge downstream of the existing bridge on a 2,200 foot radius alignment. The new bridge would be a two span pre-stressed concrete box girder that would be approximately 185 feet in length. The new bridge would be 40 feet wide, consisting of two 12-foot travel lanes and two 8-foot shoulders. The approach roadway width would also be widened to about 40 feet until it conforms with the existing roadway at each end of the bridge. The existing bridge would be left in place.

Traffic Noise Modeling Methodology

Existing and Existing plus Project (new bridge downstream of the existing bridge) traffic noise levels were calculated with the Federal Highway Administration's Traffic Noise Model (TNM v. 2.5). The geometrical data input for the traffic noise model was based on the *Watmaugh Road Bridge Replacement over Sonoma Creek Downstream Preliminary Plan*, dated April 20, 2011. Traffic inputs to the model were based on traffic volume counts made by the County in May 2011. Peak-hour traffic volumes (8:00 AM hour) were used to calculate the worst-hour noise level ($L_{eq(h)}$). Traffic speed data input for Existing conditions reflected a current posted bridge approach speed of 35 mph and a posted 45 mph roadway speed outside of the approach zone. The same speed assumptions were made for the Existing plus Project condition.

The calculated worst-hour noise levels were then conservatively assumed to equal the day-night average noise level (L_{dn}) for comparison with applicable County Noise Standards. General Plan Policy NE-1a designates areas within Sonoma County as noise impacted if receptors are exposed to existing or projected exterior noise levels exceeding 60 dBA L_{dn} . General Plan Policy NE-1b avoids noise sensitive land use development in noise impacted areas unless effective measures are included to reduce noise levels. For noise due to traffic on public roadways, railroads and airports, exterior noise in outdoor activity areas should be 60 dBA L_{dn} or less and interior noise levels should be maintained at 45 dB L_{dn} or less with windows and doors closed. These policies assume that if the exterior noise standard is met in outdoor activity areas near residential facades, then the interior noise standard would be met assuming standard residential construction methods.

Traffic Noise Modeling Results

Figure 1 shows the proposed project and noise modeling receptor locations. As shown on this figure, there are three residential parcels located immediately north of the proposed bridge, and one residential parcel to the southeast. Vineyards are located southwest of the project area.

Traffic noise levels were calculated at six modeling points (R1-R6). Receptors R1-R3 represent existing single family residences north of the existing Watmaugh Road Bridge. Receptors R4, R5, and R6 represent the front yard area, pool, and tennis court, respectively, of the residential land use located southeast of the bridge. Table 1 summarizes the results of the traffic noise modeling efforts.

Existing day-night average noise levels resulting from vehicular traffic along Watmaugh Road currently range from 53 to 60 dBA L_{dn} at residential receptors north of the existing bridge. Existing traffic noise levels at the front yard area of the residence southeast of the bridge are calculated to be 51 dBA L_{dn} and traffic noise levels at the pool and tennis court of this same residence are calculated to range from 42 to 45 dBA L_{dn} . Existing noise levels at all receptors in the project vicinity are 60 dBA L_{dn} or less.

The construction of a new bridge downstream of the existing bridge would move the traffic noise source further from receptors north of the existing bridge, resulting in noise levels 1 to 3 dBA L_{dn} less than existing conditions. Existing plus Project daily average noise levels are calculated to

range from 50 to 59 dBA L_{dn} at receptors R1, R2, and R3 assuming the construction and operation of the proposed bridge alternative. The proposed bridge alternative would move the traffic noise source closer to modeling receptors southeast of the bridge and would remove an existing approximate four-foot high stone wall that partially shields the residence southeast of the bridge. Existing plus Project noise levels are calculated to increase by 4 dBA L_{dn} at R4, 2 dBA L_{dn} at R5, and 0 dBA L_{dn} at R6. In all cases, traffic noise levels would remain below 60 dBA L_{dn} , Sonoma County's "acceptable" noise level threshold for residential land uses exposed to transportation noise.

As indicated on Table 1, the proposed project would not increase noise levels in excess of the General Plan noise threshold of 60 dBA L_{dn} at receptors in the project vicinity. Although the proposed project would not increase noise levels in excess of the exterior noise threshold, receptor R4, the front yard of the house on the southeast side of the bridge, would experience an increase in traffic noise levels of approximately 4 dBA L_{dn} . This noise increase would be noticeable as a 3 dBA increase is considered perceptible.

One method the DTPW could consider to reduce this noticeable increase in noise would be the replacement of the stone wall removed as part of the project. The traffic noise model was used to quantify traffic noise levels assuming that the DTPW would replace the stone wall with an equivalent barrier. With the reconstruction of the stone wall (in terms of height and limits), day-night average noise levels are calculated to increase by 0 to 1 dBA L_{dn} at residential outdoor use areas (i.e., front yard, pool, and tennis court) southeast of the proposed bridge. The traffic noise increases assuming the reconstructed stone wall would not be perceptible and traffic noise levels would remain below the 60 dBA L_{dn} noise level threshold for residential land uses exposed to transportation noise.

TABLE 1 – Existing and Existing plus Project Traffic Noise Levels (dBA, L_{dn})

Receptor ID	Existing Conditions	Existing Plus Project Conditions	Change Compared to Existing Conditions	Existing Plus Project Conditions (Mitigated)	Change Compared to Existing Conditions (Mitigated)
R1	60	59	-1	59	-1
R2	53	50	-3	50	-3
R3	60	57	-3	57	-3
R4	51	55	4	52	1
R5	45	47	2	46	1
R6	42	42	0	42	0



Chris Seppeler
September 5, 2012
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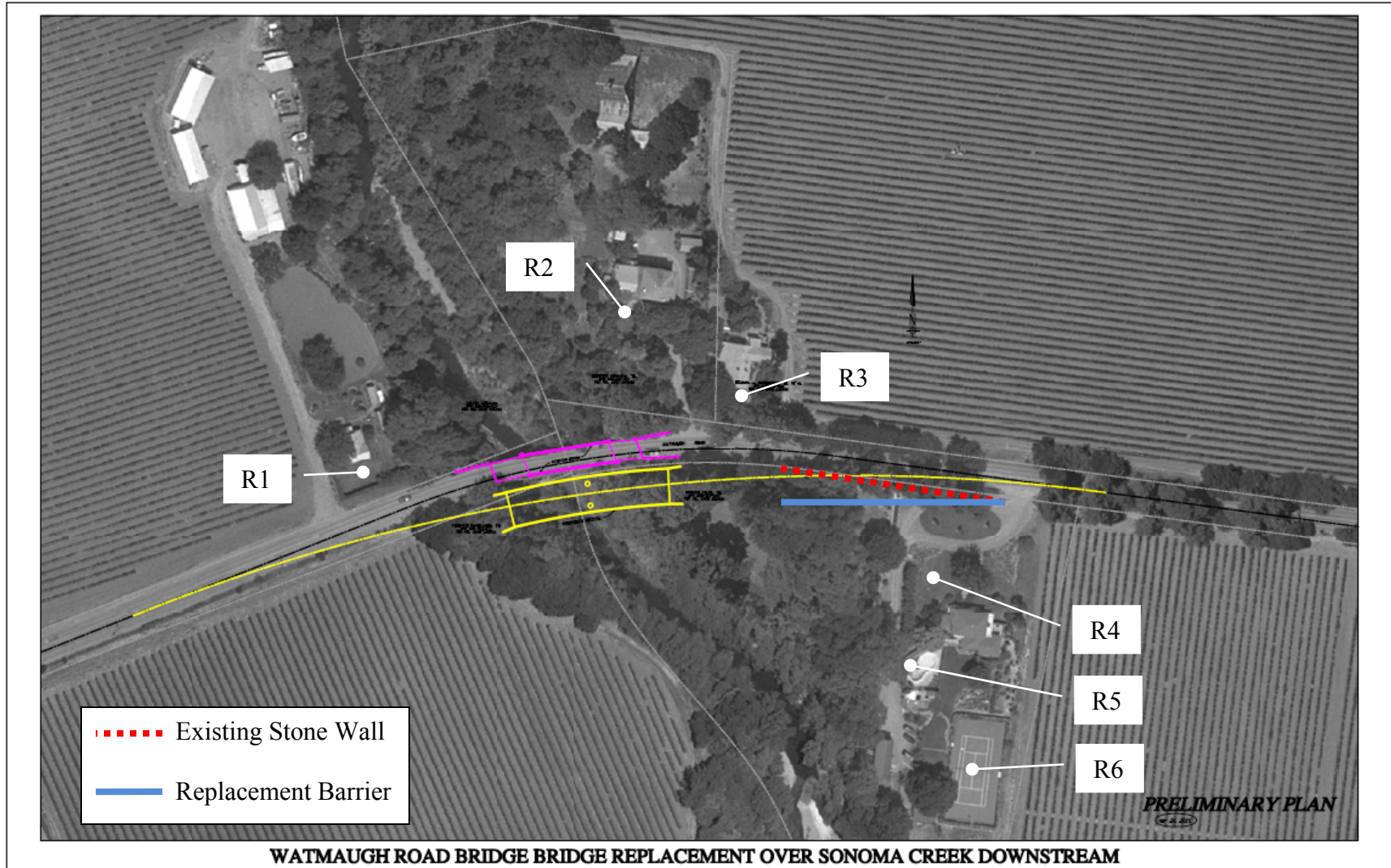
This concludes our letter. If you have any questions or comments, please do not hesitate to call.

Sincerely,

Michael S. Thill
Senior Consultant, Principal
LLINGWORTH & RODKIN, INC.

(12-119)

Figure 1 **Preliminary Plan, Noise Modeling Locations, and Approximate Barrier Locations**



APPENDIX H VISUAL ASSESSMENT GUIDELINES

Permit and Resource Management Department

VISUAL ASSESSMENT GUIDELINES

PURPOSE

The purpose of this administrative procedure is to provide guidelines for the assessment of visual impacts in the preparation of Initial Studies and Environmental Impact Reports.

GENERAL

These guidelines provide procedures to guide staff and consultant's in preparing and analyzing visual impacts. While the analysis of visual impacts involves qualitative judgements, this procedure is intended to define a methodology that utilizes to the extent practicable, objective standards that can be described and utilized in a consistent manner.

PROCEDURE

To analyze the visual effects of a specific project the following procedures should be followed.

1. Determine Viewpoints and Characterize Environmental Setting

Project impacts will be analyzed by considering public viewing points. Public viewing points include public roads, public trails, and public parks. Other public gathering places may be considered on a case-by-case basis. Start with topographic maps and aerial photos. Follow up with a "windshield" survey of roads in the vicinity of the project to determine where the project would be most visible to the general public. Consider a variety of viewpoints, and not only the point at which the project is most visible. The "baseline" environmental setting of viewpoints should be discussed in terms of existing physical features, as well as applicable regulations pertaining to development and scenic resources.

2. Prepare Photos to Illustrate Visual Impacts

Photographic analysis is required to evaluate potential visual impacts. Architectural renderings can be used for design considerations, but are discouraged in visual impact analysis because they tend to soften the effects. The visual impact analysis focuses on the mass, scale and contrast of the structure in relation to its surrounding.

- A. For smaller projects, staff shall coordinate with the applicant to construct story poles, or tethered balloon clusters that accurately represent the height and location of the project. The story poles or balloon tethers should be marked at 5-foot intervals to provide a reference scale on the photos. In some instances a notice to the area residents describing the purpose for the story poles should be provided and/or site visit should be arranged for the decision-making body.

Take photos of the site from the various viewpoints identified in Step 1, or require the applicant's representative or consultant to provide photos taken from the selected viewpoints along with a site plan illustrating the location and height of each story pole and the viewpoints for the photos. If telephoto photos are to be taken, be sure that a similar photo is taken that represents the view seen by the human eye. A 360 degree panoramic view, taken from where the project will be located, is helpful to convey the surrounding landscape.

The photos should be marked by outlining the proposed structure using the story

poles or balloons as a guide for the roof line and corners of the structure. In some instances, offsite views may be at such a distance, that the balloons or story poles are not readily apparent in the photos without the use of a telephoto lens – include both telephoto and normal eye view in these instances may be needed to illustrate the structure.

B. For more complex projects, a digitized photo simulation may be required. The following tasks are appropriate for visual assessments prepared by consultants:

1. Photograph site from viewpoints determined in Step 1 above. Verify site photography locations on field maps for use with computer model of the proposed project. Delineate additional field references to help verify the computer modeling and viewpoint locations.
2. Prepare baseline photographs from selected viewpoints for the simulations.
3. Develop plan and section figures describing the visual conditions within the project viewshed.
4. Produce a 3D realistic computer model of the proposed project using topographic, architectural and landscape drawings of project. Use AutoCAD or other appropriate software to develop the 3D terrain and architectural aspects of the model.
5. Additional simulations may be done to illustrate the effect of mitigation from landscape screening growth at 5- or 10-year intervals following construction.
6. Apply the proposed building materials and paint colors to the model and render, duplicating the view angle, distance, lighting conditions and time of year in the existing conditions photograph. Use existing elements in the baseline photograph as control points to register the model to the photograph. Repeat for each viewpoint.
7. Verify viewpoint accuracy using computer plot overlays on base photographs.
8. Digitize base photographs for each selected viewpoint.
9. Produce visual simulations that accurately show the proposed project (“before and after”) for each selected viewpoint. The simulations should represent the mass, scale, density and proposed grading of the project. The computer simulation must include: all grading including roadways, driveways, landscape and parking areas and tree removal for required fire breaks; all structures and ancillary facilities; and landscaping at the time that construction is completed.
10. Analyze project impacts as described below.

3. Characterize the Site's Sensitivity

The visual sensitivity of the project site should be given a rating of low, moderate, high or maximum using the following criteria in Table 1.

Table 1
Site Sensitivity

Sensitivity	Characteristics
Low	The site is within an urban land use designation and has no land use or zoning designations protecting scenic resources. The project vicinity is characterized by urban development or the site is surrounded by urban zoning designations and has no historic character and is not a gateway to a community. The project site terrain has visible slopes less than 20 percent and is not on a prominent ridgeline and has no significant natural vegetation of aesthetic value to the surrounding community.
Moderate	The site or portion thereof is within a rural land use designation or an urban designation that does not meet the criteria above for low sensitivity, but the site has no land use or zoning designations protecting scenic resources. The project vicinity is characterized by rural or urban development but may include historic resources or be considered a gateway to a community. This category includes building or construction sites with visible slopes less than 30 percent or where there is significant natural features of aesthetic value that is visible from public roads or public use areas (i.e. parks, trails etc.).
High	The site or any portion thereof is within a land use or zoning designation protecting scenic or natural resources, such as General Plan designated scenic landscape units, coastal zone, community separators, or scenic corridors. The site vicinity is generally characterized by the natural setting and forms a scenic backdrop for the community or scenic corridor. This category includes building and construction areas within the SR designation located on prominent hilltops, visible slopes less than 40 percent or where there are significant natural features of aesthetic value that are visible from public roads or public use areas (i.e. parks, trails etc.). This category also includes building or construction sites on prominent ridgelines that may not be designated as scenic resources but are visible from a designated scenic corridor.
Maximum	The site or any portion thereof is within a land use or zoning designation protecting scenic resources, such as General Plan designated scenic landscape units, coastal zone, community separators, or scenic corridors. The site vicinity is generally characterized by the natural setting and forms a scenic backdrop for a designated scenic corridor. This category includes building or construction sites within the scenic resource designation on or near prominent ridgelines, visible slopes greater than 40 percent or where there are significant natural features of aesthetic value that are visible from a designated scenic corridor.

Note: A ridgeline is a landform which, when viewed from a public street, is silhouetted against

the sky and where no earth backdrop is provided by the subject or contiguous property for a proposed structure.

4. Determine Visual Dominance

The visual dominance of the project is determined comparing the contrast of the following elements or characteristics of the project with its surroundings and giving a rating of inevident, subordinate, co-dominant, or dominant:

- Form: shape, geometry, complexity
- Line: the edge of the shape, boldness, complexity of silhouette, orientation
- Color: reflectivity, hue (actual color), value (dark or light)
- Texture: surface characteristics, randomness, grain (fine or coarse)
- Night Lighting

Based on the criterion listed above, define the visual dominance of the project as described in Table 2.

Table 2
Visual Dominance

Dominance	Characteristics
Dominant	Project elements are strong – they stand out against the setting and attract attention away from the surrounding landscape. Form, line, color, texture, and night lighting contrast with existing elements in the surrounding landscape.
Co-Dominant	Project elements are moderate – they can be prominent within the setting, but attract attention equally with other landscape features. Form, line, color, texture, and night lighting are compatible with their surroundings.
Subordinate	Project is minimally visible from public view. Element contrasts are weak – they can be seen but do not attract attention. Project generally repeats the form, line, color, texture, and night lighting of its surroundings.
Inevident	Project is generally not visible from public view because of intervening natural land forms or vegetation.

5. Determine Significance of Visual Impacts

The determination of visual impact significance is made by:

- a. Establishing the level of visual sensitivity of the site using the criteria discussed Table 1.

- b. Characterizing the visual dominance of the project in terms of its form, line, color, texture, and lighting as described in Table 2.
- c. Determining significance of the visual impact by comparing site sensitivity with visual dominance of the project in accordance in Table 3.

Table 3
Thresholds of Significance
for
Visual Impact Analysis

Sensitivity	Visual Dominance			
	<i>Dominant</i>	<i>Co-Dominant</i>	<i>Subordinate</i>	<i>Inevident</i>
<i>Maximum</i>	Significant	Significant	Significant	Less than significant
<i>High</i>	Significant	Significant	Less than significant	Less than significant
<i>Moderate</i>	Significant	Less than significant	Less than significant	Less than significant
<i>Low</i>	Less than significant	Less than significant	Less than significant	Less than significant

6. **Mitigation Measures.** Possible mitigation measures for visual impacts include the following:
- Limit the extent of grading, tree removal, amount of cuts and fills, length of roadways, height of retaining walls and areas for building envelopes. Conservation easements may be appropriate to protect viewsheds and sensitive visual resources.
 - Building envelopes may need to be adjusted to avoid the most visible locations and/or reduced in size. Structures could be limited in their size or height to reduce bulk and contrast.
 - Color and texture of building materials should be consistent with the surrounding environment. Non-reflective surfaces and darker colors should be utilized to avoid glare and contrast.
 - Require screening vegetation and landscape plans subject to Design Review.
 - Require exterior lighting plans subject to Design Review. Exterior lighting shall be low mounted, downward casting and fully shielded to prevent glare. Lighting shall not wash out structures or any portions of the site. Light fixtures shall not be located at the periphery of the property and shall not spill over onto adjacent properties or into the sky. Flood lights are not permitted. Parking lot fixtures should be limited in height (20-feet). All parking lot and/or street light fixtures shall use full cut-off fixtures. Lighting shall shut off automatically after closing and security lighting shall be motion-sensor activated.
 - Lighting plans should be designed to meet the appropriate Lighting Zone standards from Title 24 effective October 2005 (LZ1 for dark areas, LZ2 for rural, LZ3 for urban).

APPENDIX I SITE PHOTOGRAPHS



Photo 1. Looking west toward the bridge.



Photo 2. Looking east toward the bridge.



Photo 3. Side view of the bridge, looking upstream



Photo 4. Underside of the bridge, looking toward the east bank and eastern pier.



Photo 5. Standing adjacent to the eastern pier, looking west toward the west bank and pier.



Photo 6. Looking upstream at the western pier and riparian habitat. Note substandard pier and rock rip-rap bank stabilization.

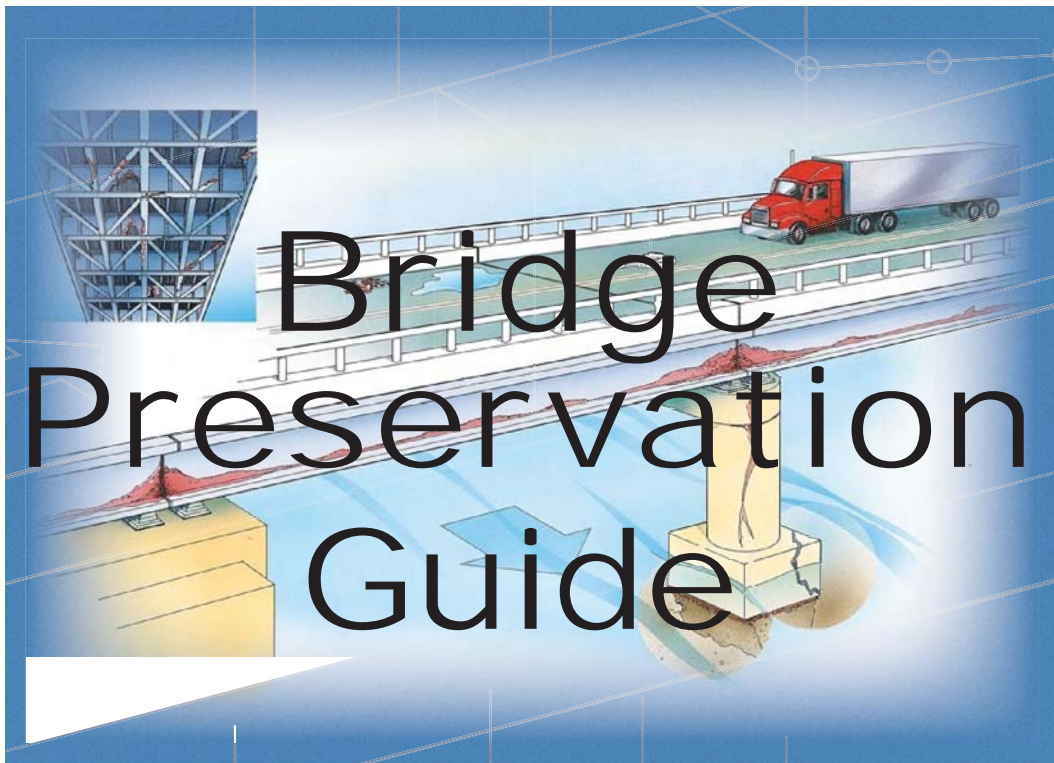


Photo 7. Creek and riparian habitat downstream of the existing bridge.



Photo 8. Watmaugh Road approaching the bridge from the east.

APPENDIX J FHWA BRIDGE PRESERVATION GUIDELINES



Maintaining a State of Good Repair Using
Cost Effective Investment Strategies



U.S. Department
of Transportation
**Federal Highway
Administration**

Notice

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FHWA Contact for this publication: Anwar S. Ahmad, P.E.

Telephone: (202) 366-8501

Email: Anwar.Ahmad@dot.gov

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I. Introduction

State departments of transportation and other bridge owners are faced with significant challenges in addressing the Nation's highway bridge preservation and replacement needs.

More than 25 percent of the Nation's 600,000 bridges are rated as structurally deficient or functionally obsolete. More than 30 percent of existing bridges have exceeded their 50-year theoretical design life¹ and are in need of various levels of repairs, rehabilitation, or replacement. This issue is exacerbated by increasing travel demands, limited funding, and increasing costs of labor and materials. These circumstances have caused most bridge owners to become more reactive than proactive in their approach to managing and addressing their bridge program needs.

Bridge stewards and owners need to become, inevitably, more strategic by adopting and implementing systematic processes for bridge preservation as an integral component of their overall management of bridge assets.

A successful bridge program seeks a balanced approach to preservation and replacement. Focusing only on replacing deficient bridges while ignoring preservation needs will be inefficient and cost-prohibitive in the long term. Adopting a "worst first" approach to managing bridge assets may also yield ineffective results that allows bridges in good condition to deteriorate into the deficient category which generally is associated with higher costs and other challenges.

The objective of a good bridge preservation program is to employ cost effective strategies and actions to maximize the useful life of bridges. Applying the appropriate bridge preservation treatments and activities at the appropriate time can extend bridge useful life at lower lifetime cost.

Preservation activities often cost much less than major reconstruction or replacement activities. Delaying or forgoing warranted preservation treatments will result in worsening condition and can escalate the feasible treatment or activity from preservation to replacement. The latter will result in extensive work and higher cost. A viable alternative is timely and effective bridge preservation of sound bridges to assure their structural integrity and extend their useful life before they require replacement.

¹ The theoretical design life of a bridge has been 50 years, but with the evolution of new design guidelines and construction materials the anticipated service life for newly constructed bridges is 75 years or greater.

II. Purpose

This guide provides bridge related definitions and corresponding commentaries, as well as the framework for a systematic approach to a preventive maintenance (PM) program. The goal is to provide guidance on bridge preservation. This guide does not create or confer any rights for or on any person or operate to bind the bridge owners or bridge operating agencies. Bridge owners or agencies may use an alternative approach if it satisfies the requirements of the applicable statutes and regulations.

III. Scope

This guide is intended for Federal, State, and local bridge engineers, area engineers, bridge owners, and bridge preservation practitioners. The success of a viable bridge preservation program will involve these individuals as well as others who support the Federal-aid highway program.

IV. Eligibility

Over the last 30 years, the Congress has provided approximately \$77.6 billion to the States through the Federal-aid bridge program. In 2008, Congress renewed emphasis in preservation of our Nation's bridge infrastructure by changing the name from the Highway Bridge Replacement and Rehabilitation Program to the Highway Bridge Program (HBP) and adding systematic preventive maintenance (SPM)² as an eligible activity.

Title 23, United States Code (U.S.C.), Section 144 makes HBP funds available for highway bridge replacement and rehabilitation based on the development of the following: (1) a bridge inventory (National Bridge Inventory); (2) a classification system (Deficiency Status and Sufficiency Rating); (3) a priority system within the classification system (Sufficiency Rating and Selection List); and (4) a cost evaluation of the replacement and rehabilitation options. These funds may be expended for replacement, rehabilitation, painting, seismic retrofit, SPM, installation of scour countermeasures and application of anti-icing or de-icing compositions to eligible (i.e., on Selection List) highway bridge projects on and off the Federal-aid highways. Additionally, 23 U.S.C. 144(d) allows these funds to be expended for seismic retrofit, SPM, and

² The SAFETEA-LU Technical Corrections Bill was signed into law on June 5, 2008. What was formerly known as the Highway Bridge Replacement and Rehabilitation Program in 23 U.S.C. 144 is now legally known as the Highway Bridge Program (HBP). The Congress in making this change is placing greater emphasis on a program of SPM making HBP funds available for this type activity with less emphasis on replacement and rehabilitation. This flexibility allows State transportation departments to determine whether to spend HBP funds on replacement, rehabilitation, or SPM.

scour countermeasures without regard to whether the bridge is eligible for replacement or rehabilitation.

Please refer to the FHWA memorandum in Appendix C for additional information on the use of Federal-aid funds for preventive maintenance.

The commentary that follows goes into more detail regarding requirements and the kinds of activities included under each category. Recall that routine maintenance is ineligible for Federal-aid highway funding.

V. Definitions and Related Commentaries

A successful bridge program is based on a strategic, systematic, and balanced approach to managing bridge preservation and replacement needs.

Several definitions are presented within this section along with commentary. The definitions are offered as a means of establishing clear and consistent terminology for the bridge preservation practitioners.

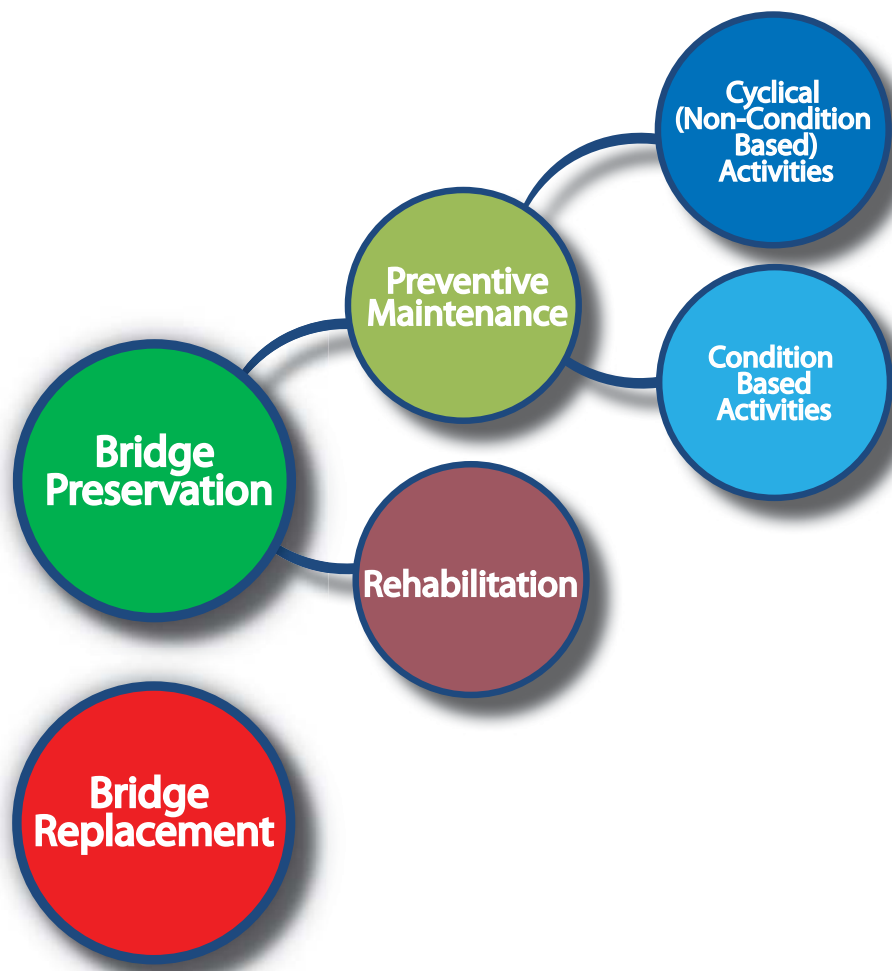


Figure 1 – Bridge Action Categories



Bridge Preservation – Definition

Bridge preservation is defined as actions or strategies that prevent, delay or reduce deterioration of bridges or bridge elements, restore the function of existing bridges, keep bridges in good condition and extend their life. Preservation actions may be preventive or condition-driven.

Source: FHWA Bridge Preservation Expert Task Group.³

Bridge Preservation – Commentary

Effective bridge preservation actions are intended to delay the need for costly reconstruction or replacement actions by applying preservation strategies and actions on bridges while they are still in good or fair condition and before the onset of serious deterioration. Bridge preservation encompasses preventive maintenance and rehabilitation activities (refer to figure 1).

An effective bridge preservation program:

- 1) Employs long-term strategies and practices at the network level to preserve the condition of bridges and to extend their useful life;
- 2) Has sustained and adequate resources and funding sources; and
- 3) Has adequate tools and processes to ensure that the appropriate cost effective treatments are applied at the appropriate time.

Preventive Maintenance – Definition

Preventive maintenance is a planned strategy of cost-effective treatments to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system (without substantially increasing structural capacity). *Source: AASHTO Subcommittee on Maintenance.*

³ This is a definition developed through the Bridge Preservation Expert Task Group that will be vetted through the AASHTO Subcommittee on Bridges and Structures (SCOBs) and Subcommittee on Maintenance (SCOM) at their 2011 meetings for approval as an AASHTO definition.

Preventive Maintenance – Commentary

Bridge owners typically apply PM to elements or components of structures with significant remaining useful life. As a major part of bridge preservation, PM is a strategy of extending useful life by applying cost-effective treatments to sound bridges (good or fair condition). The concept of preventive bridge maintenance suggests that a planned strategy of cost-effective treatments should be performed to keep bridges in good condition, retard future deterioration, and avoid large expenses in bridge reconstruction or replacements.

Examples of PM activities may include but are not limited to the following:

- Bridge washing and or cleaning
- Sealing Deck Joints
- Facilitating Drainage
- Sealing Concrete
- Painting Steel
- Removing Channel Debris
- Protecting Against Scour
- Lubricating Bearings

Preventive maintenance includes cyclical (non-condition based) and condition-based activities as illustrated in figure 1.

Cyclical Preventive Maintenance Activities – Definition

Activities performed on a pre-determined interval and aimed to preserve existing bridge element or component conditions. Bridge element or component conditions are not always directly improved as a result of these activities, but deterioration is expected to be delayed.

Cyclical Preventive Maintenance Activities – Commentary

Different performance measures and frequencies could be established for cyclical activities based on the desired level of service and program goals. For example, a bridge owner may establish performance targets for bridges that are on the National Highway System that are different from those for bridges on other roadway systems with lower traffic volumes.

Examples of cyclical PM activities and commonly used frequencies that may be considered by bridge owners for implementation on sound bridges are shown in table 1 below:

Cyclical PM Activity Examples	Commonly Used Frequencies (Years) ⁽⁴⁾
Wash/clean bridge decks or entire bridge	1 to 2
Install deck overlay on concrete decks such as:	
- Thin bonded polymer system overlays	10 to 15
- Asphalt overlays with waterproof membrane	10 to 15
- Rigid overlays such as silica fume and latex modified	20 to 25
Seal concrete decks with waterproofing penetrating sealant	3 to 5
Zone coat steel beam/girder ends	10 to 15
Lubricate bearing devices	2 to 4

⁽⁴⁾ - Frequencies are based on FHWA's knowledge of typical State DOT practices

Table 1: Examples of Cyclical PM Activities

Condition Based Preventive Maintenance Activities – Definition

Activities that are performed on bridge elements as needed and identified through the bridge inspection process.

Condition Based Preventive Maintenance Activities – Commentary

These activities are typically performed on a bridge that is in overall good to fair condition to restore bridge elements to a state of good repair. Similar to cyclical preventive maintenance activities, the condition based preventive maintenance activities are designed to extend the useful life of bridges.

Examples of condition based preventive maintenance activities include but are not limited to: Sealing or replacement of leaking joints; Installation of deck overlays; Installation of cathodic protection (CP) systems; Complete, spot, or zone painting/coating of steel structural elements; Installation of scour countermeasures. These PM examples may also be implemented in advance of any condition-based observations. For example, installation of scour countermeasures at a substructure element that is deemed scour susceptible, but before observing any scour during the routine inspection.

Rehabilitation – Definition

Rehabilitation involves major work required to restore the structural integrity of a bridge as well as work necessary to correct major safety defects. *Source: 23 CFR 650.403(c).*

Rehabilitation – Commentary

Rehabilitation work can be done on one or multiple elements and/or components. Bridge rehabilitation projects are often intended to restore the structural integrity of a bridge and correct major safety defects.

As shown in figure 1, bridge rehabilitation activities are considered bridge preservation. However functional improvements such as adding a travel lane or raising vertical underclearance, while often is considered as rehabilitation are not considered preservation.

Bridge rehabilitation projects provide complete or nearly complete restoration of bridge elements or components. These projects typically require significant engineering resources for design, a lengthy completion schedule, and considerable costs. Most rehabilitation projects include repairs to several bridge components but can be limited to bridge deck replacement.

Examples of bridge rehabilitation include but are not limited to: Partial or complete deck replacement; Superstructure replacement; Strengthening. Incidental widening is often associated with some of these activities.

Replacement – Definition

Total replacement of a structurally deficient or functionally obsolete bridge with a new facility constructed in the same general traffic corridor. A nominal amount of approach work, sufficient to connect the new facility to the existing roadway or to return the gradeline to an attainable touchdown point in accordance with good design practice is also eligible. The replacement structure must meet the current geometric, construction and structural standards required for the types and volume of projected traffic on the facility over its design life. *Source: 23 CFR 650.405(b)(1).*

Replacement – Commentary

Similar to bridge rehabilitation, bridge replacement projects require engineering resources for design, a substantial and complex completion schedule, and considerable costs. Life cycle costs and other economic factors are usually considered when weighing rehabilitation versus replacement costs.

Bridge replacement is not considered a preservation activity.

Condition State

A condition state categorizes the nature and extent of damage or deterioration of a bridge element. The AASHTO Guide Manual for Bridge Element Inspection, first edition, 2011, provides detailed information on bridge elements and their corresponding condition states. According to the AASHTO guide manual, each bridge element can have four condition states. The higher the condition state, the higher the severity of the damage and/or deterioration. All elements defined in the AASHTO guide manual have the same general requirements:

1. Standard number of condition states
2. The condition states are generally comprised of good, fair, poor, and severe general descriptions

National Bridge Inventory (NBI) General Condition Ratings (GCRs)

General condition ratings are used to describe the existing, in-place bridge or culvert as compared to the as-built condition. The materials used in the bridge are considered as well as the physical condition of the deck, superstructure and substructure components. This information is used to determine GCRs on a numerical scale that ranges from 0 (failed condition) to 9 (excellent condition) as described in the FHWA Coding Guide⁵. Appendix A provides a description for each of these numeric values. The GCRs are used in evaluating bridge decks, bridge superstructures, bridge substructures, and culverts.

State of Good Repair (SGR)

A condition in which the existing physical assets, both individually and as a system (a) are functioning as designed within their useful service life, (b) are sustained through regular maintenance and replacement programs. SGR represents just one element of a comprehensive capital investment program that also addresses system capacity and performance.⁶

Considering the aforementioned characterization of SGR as it applies to physical assets, for bridge assets, SGR would mean: the existing physical conditions of bridge elements, components or entire bridges are such that the bridges (a) are functioning as designed and (b) are sustained through regular maintenance, preservation, and replacement programs.

⁵ FHWA Report number PD-96-001 "Recording and Coding Guide for Structure Inventory and Appraisal of the Nation's Bridges, December 1995".

⁶ Secretary Mary Peters July 25, 2008 letter to Congress on this topic.

Structurally Deficient (SD)

Bridges are considered SD if significant load carrying elements are found to be in poor condition due to deterioration and/or damage, or the adequacy of the waterway opening provided by the bridge is determined to be extremely insufficient to the point of causing overtopping with intolerable traffic interruptions.

SD is numerically defined as follows:

- A bridge component (deck, superstructure, substructure or culvert) having an NBI general condition rating of a 4 or less (poor condition)
- or
- Structural Evaluation or Waterway Adequacy rated a 2 or less (a bridge with a very low load rating capacity, or a bridge that is subject to overtopping with significant or severe traffic delays).

For a structure to be considered SD, one of the following items must be true⁷:

	NBI GENERAL CONDITION RATINGS				APPRAISAL RATINGS	
NBI Item#	58	59	60	62	67	71
	Deck	Superstructure	Substructure	Culvert	Structural Evaluation	Waterway Adequacy
Code	<= 4	<= 4	<= 4	<= 4	<= 2	<= 2

Table 2- SD Criteria

Examples of Conditions Leading to an SD Classification



Deck



Superstructure



Substructure

⁷ Each NBI item number shown in the table is further described in the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges.

Functionally Obsolete (FO)

Bridges are considered FO when the deck geometry, load carrying capacity (comparison of the original design load to the current State legal load), clearance, or approach roadway alignment no longer meet the usual criteria for the system of which it is an integral part. In general, FO means that the bridge was built to standards that are not used today. Examples of characteristics leading to an FO classification:

- Low load carrying capacity
- Low waterway adequacy
- Deck geometry (insufficient deck roadway width)
- Insufficient horizontal and vertical clearances
- Poor approach roadway alignment.

For a structure to be considered FO, one of the following items must be true:

	APPRAISAL RATINGS				
NBI Item #	67	71	68	69	72
	Structural Evaluation	Waterway Adequacy	Deck Geometry	Underclearances	Approach Roadway Alignment
Code	= 3	= 3	<= 3	<= 3	<= 3

Table 3 – FO Criteria

Examples of Characteristics Resulting in FO Classifications



Shoulder widths less than current standards

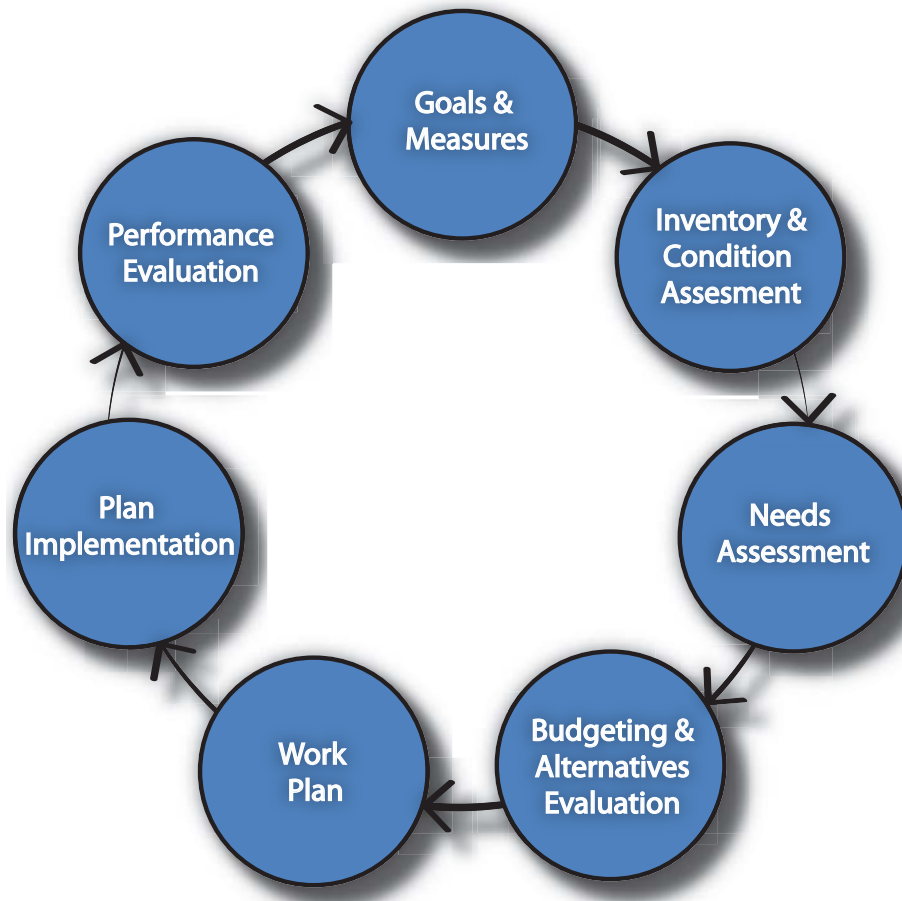


Vertical Underclearance less than current standards

Sufficiency Rating (SR)

The sufficiency rating formula provides a method of evaluating highway bridge data by calculating four separate factors to obtain a numeric value which is indicative of bridge sufficiency to remain in service. The result of this method is a percentage in which 100 percent would represent an entirely sufficient bridge and zero percent would represent an entirely insufficient or deficient bridge. The formula considers the structural adequacy; functional obsolescence and level of service; and essentiality for public use. The SR formula is described in Appendix B of FHWA's *Recording and Coding Guide for the Structure, Inventory and Appraisal of the Nation's Bridges*.

VI. Systematic Preventive Maintenance (SPM) Program



What is Systematic Preventive Maintenance (SPM)?

The AASHTO Subcommittee on Maintenance's definition of "preventive maintenance" includes the phrase "a planned strategy of cost-effective treatments." An SPM program is based on a planned strategy that is equivalent to having a systematic process that defines the strategy, how it is planned, and how activities are determined to be cost effective.

An SPM program for bridges can be defined as a planned strategy of cost-effective treatments to existing bridges that are intended to maintain or preserve the structural integrity and functionality of elements and/or components, and retard future deterioration, thus maintaining or extending the useful life of the bridge.

An SPM program can also be defined as a documented methodology regularly applied to repeatedly achieve a desired outcome or goal. An SPM program may be applied to bridges at the network, highway system, area wide, or region wide basis.

A. Qualifying SPM Program Parameters for use of Federal-aid Funds

23 U.S.C. 144(d) allows HBP funds to be expended for SPM on highway bridges located on public roads regardless of whether a bridge is eligible for replacement or rehabilitation.

Additional information regarding the use of Federal-aid funds for PM is found in Appendix C (FHWA memorandum on Preventive Maintenance Eligibility, October 8, 2004).

The use of a Bridge Management System (BMS) is highly encouraged as it facilitates the implementation of an SPM program. However, a BMS is not a prerequisite for an SPM program. An acceptable SPM program at a minimum should have the following six attributes:

1. **Goals and Objectives** – Clearly defined goals and objectives for the SPM program.
2. **Inventory and Condition Assessment** – Availability of tools and resources to conduct bridge inspections and evaluation.
3. **Needs Assessment** - Documented needs assessment process that outlines how PM needs are identified, prioritized, and programmed.
4. **Cost Effective PM Activities** – Ability to demonstrate that the proposed PM activities are a cost-effective means of extending the life of a bridge.
5. **Accomplishing the Work** – Availability of tools and resources to accomplish the PM work.
6. **Reporting and Evaluation** – Ability to track, evaluate, and report on the planned and accomplished PM work on an annual and/or as-needed basis.

SPM Program Parameters Commentary

1. **Goals & Objectives** – Clearly defined goals and objectives for the SPM program.

As with any effective bridge management program, an SPM program should have objectives and measurable goals. An example of objective and overall goal that could be considered in adopting an SPM program is shown below.

- **Objective:** Implement timely preservation treatments on structurally sound bridges, thereby extending their useful life. Structurally sound may be defined as having an overall NBI general condition rating of 5 or greater for the deck, superstructure, substructure, or culvert components, or AASHTO Element Condition State of 1 or 2 for the elements associated with the deck, superstructure, substructure, and culvert units.
- **Overall Program Goal:** Maintain X percent of bridges in a state of good repair.

Measure: Percent of bridges with element condition state ≤ 2 .

Measure: Percent of bridges with NBI general condition rating ≥ 6 .

Measure: Percent of bridges with Health Index⁸ \geq “X” percent.

Goals and measures can also be developed for specific PM strategies as shown in the following examples.

Strategies for cyclical PM activities:

1. **Goal:** Seal concrete decks with waterproof penetrating sealant every “X” years.

Measure: Percent of bridge decks sealed annually.

2. **Goal:** Paint steel beam/girder ends every “X” years.

Measure: Percent of beam/girder ends painted annually.

3. **Goal:** Bridges are clean and free of debris and contaminating chemicals.

Measure: Percent of bridges washed/cleaned annually.

⁸ Health Index or HI is used for the calculation of a single integral indicator of the structural health of the bridge. This indicator is expressed as a percentage value. This value may vary from 0%, which corresponds to the worst possible condition, to 100% in the best condition. Health index is calculated as a function of the fractional distribution of the bridge elements’ quantities across the range of their applicable condition states (CS).

Strategies for condition-based PM activities:

1. **Goal:** - Maintain “X” percent of expansion joints in condition state 2 or better.

Measure: Percent of expansion joints in condition state 2 or better.

2. **Goal:** Maintain “X” percent of coated steel surfaces in good condition.

Measure: Percent of steel protective coating element in condition state 2 or better.

Measure: Percent of steel bridges with NBI general condition rating of 6 or better for the superstructure.

3. **Goal:** Maintain “X” percent of bridge decks in good condition.

Measure: Percent of deck and slab elements in condition state 2 or better.

Measure: Percent of bridges with NBI general condition rating of 6 or better for the deck.

4. **Goal:** All bridges are clean and free of debris.

Measure: Any reported debris cleared within “X” days of notification.

For additional examples of qualifying PM activities refer to section VI. B.

An agency may wish to consider establishing different goals for different highway systems, functional classifications, or Average Daily Traffic (ADT) ranges.

2. **Inventory and Condition Assessment** - Availability of tools and resources to conduct bridge inspections and evaluation. The foundation of a good SPM program is based on the availability of quality inspection data and condition assessment outcomes from that data. Inventory and condition data are collected by bridge owners in accordance with the NBI and the National Bridge Inspection Standards. NBI general condition ratings are assigned by bridge inspectors during each inspection cycle for major components: deck, superstructure, substructure, and culvert (see appendix A). In addition to the NBI general condition rating for

bridge components, the majority of State DOTs have also been collecting bridge element inspection data⁹. Bridge element data can be very instrumental in the implementation of various aspects of bridge management strategies including bridge preservation.

3. Needs Assessment - Documented needs assessment process that outlines how PM needs are identified, prioritized and programmed.

An SPM program should include a needs assessment that describes the bridge owner's plan for identifying and prioritizing needs.

Examples of components of a needs assessment include the following:

- A schedule of predetermined intervals for conducting a needs assessment, such as annually or biennially.
 - Storage of the data from the needs assessment that allows for querying and the identification, quantification, and ranking of PM work candidates.
 - The means of estimating the cost of the work needed to achieve the established program goals.
 - A repeatable, unbiased data collection process.
4. Cost Effective PM Activities – Ability to demonstrate that the proposed PM activities are a cost-effective means of extending the life of a bridge.

The examples of PM activities found in Section IV.B of this guide may be considered cost effective when applied to the appropriate bridges at the appropriate time using quality materials and workmanship. For example, painting a steel superstructure with severe deterioration and section loss resulting in significant reduction in the load carrying capacity of the bridge may not be considered cost effective, but painting a steel superstructure that is in fair condition where the structural load carrying capacity has not been adversely affected may be considered cost effective given that the entire bridge is expected to have a significant remaining life.

Multiple activities may be warranted on single or multiple bridge elements or components when planning and accomplishing bridge work. Addressing the root cause of bridge problems is a key strategy to a successful bridge program. For example, an ineffective strategy

⁹ AASHTO Guide Manual for Bridge Element Inspection, first edition, 2011

would be repainting a partially failed paint zone along the beam ends and repairing deterioration on a pier cap located beneath a leaking deck joint without arresting the water leakage onto the superstructure and substructure elements. In addition to the beam zone painting and repairing the deterioration on the pier cap, sealing or replacing the leaking deck joint is an equally important preservation activity.

Further examples will be found in Section VI.B, but other qualifying activities may be presented to the FHWA Division Office for consideration and approval on a case-by-case basis. SPM program attributes 5 and 6 discussed below are essential in evaluating the effectiveness of employed PM activities and strategies and the impact of these activities and strategies on extending the life of the bridge assets.

5. Accomplishing the Work – Availability of tools and resources to accomplish the PM work.

The SPM program should have the means to deliver the qualifying PM activities and comply with all applicable Federal, State, and Local requirements.

6. Reporting and Evaluation – Ability to track, evaluate, and report on the planned and accomplished PM work on an annual and/or as needed basis.

The SPM program should have the means to report on all planned and accomplished PM work on a periodic basis, such as annually or biennially.

The SPM program should track and report on costs, both by work type (e.g., \$/sq ft for deck sealing), and in the aggregate (e.g., amount expended for deck sealing this year).

The SPM program should track expenditures over time. In most cases this would be the dollars expended annually for the SPM program to allow the expenditures to be compared with the condition of the system to ensure that the investment is providing the return expected.

In addition to the above discussed program attributes, the process map shown in figure 3 can be used to assist in the evaluation process of an agency's systematic process to determine the eligibility of PM activities for Federal-aid funds.

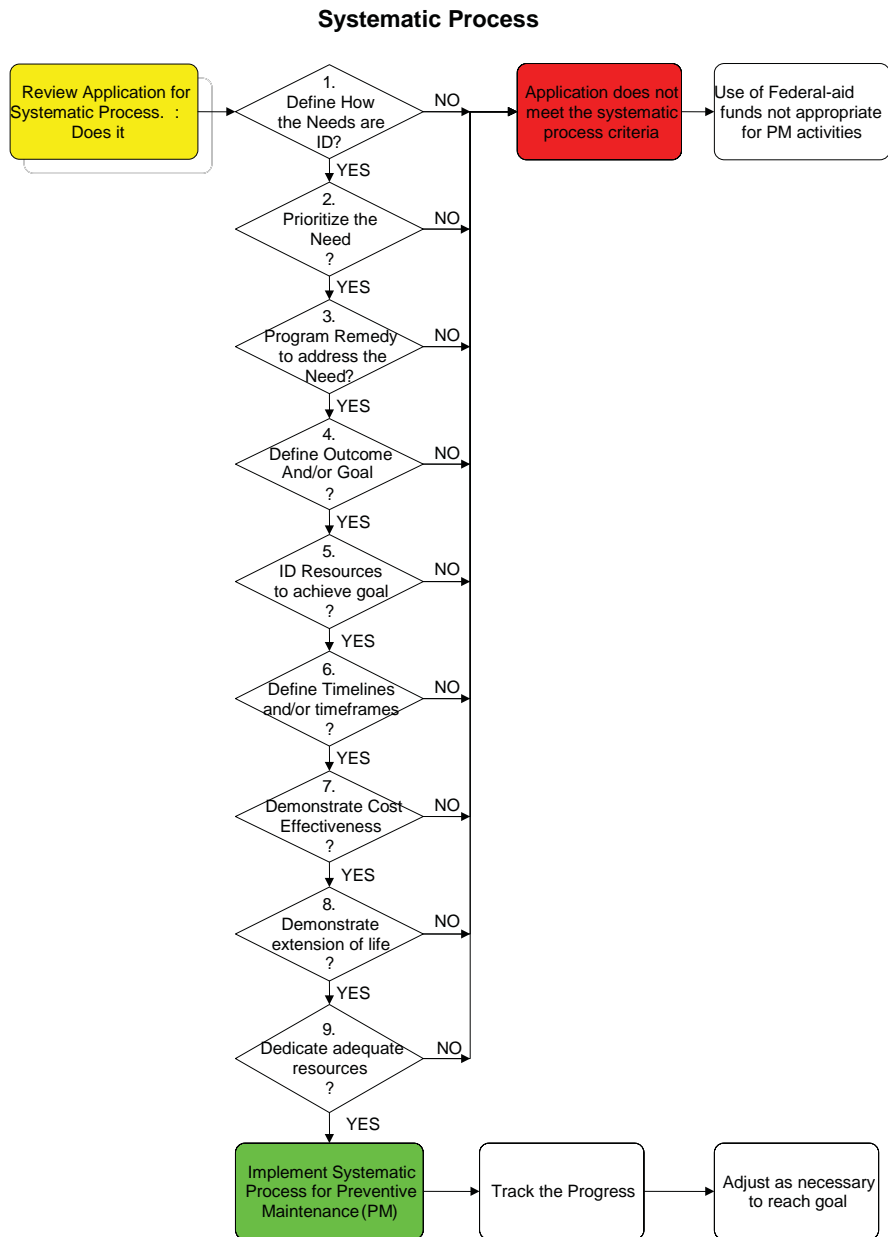


Figure 3 – Systematic Process

B. Examples of PM activities that may extend the life of bridges

This section presents several examples of PM activities and treatments that may be considered cost effective when applied to the appropriate bridges at the appropriate time using quality material and workmanship as discussed in section VI-A of this document. These examples are not intended to be all inclusive.

Decks:

1. **Seal or replace leaking joints or eliminate deck joints** - minimizes the deterioration of superstructure and substructure elements beneath the joints.



2. **Deck overlays** - significantly increase the life of the deck by sealing the deck surface from aggressive solutions and reducing the impact of aging and weathering. Overlay systems include waterproofing membrane with asphaltic concrete overlay, low permeability or high performance concrete overlays, and methyl methacrylate and polymer-system overlays.



3. **Cathodic Protection (CP) systems for bridge decks** - proven technology for stopping the corrosion of reinforcing steel.

4. **Electrochemical Chloride Extraction (ECE) treatment** - removes the chloride ions from the vicinity of the reinforcing steel and thus eliminates the source of corrosion.



5. **Concrete deck repairs in conjunction with installation of deck overlays, CP systems, or ECE treatment** - proven technology for stopping the corrosion of reinforcing steel.

Superstructure:

- 6. CP systems for superstructure elements other than decks** - proven technology for stopping the corrosion of reinforcing steel.
- 7. Spot and zone painting/coating** - protects against corrosion. Target areas where the paint deteriorates the fastest to slow the deterioration process and thus extend the life of the paint system and the painted element.



- 8. Painting/coating or overcoating of structural steel** - protects against corrosion. Reduces the deterioration of the structural steel.



- 9. Retrofit of fracture critical members** - methods to add redundancy to the structure such as installing a redundant catch system for pin and link assemblies.

- 10. Retrofit of fatigue prone details** - methods to increase the life of fatigue prone details, such as using ultrasonic impact treatment on welds at ends of cover plates or connection plate welds not positively connected to flanges or other conventional fatigue retrofit methods.

Substructure:

- 11. CP systems for substructure elements** - proven technology for stopping the corrosion of reinforcing steel.





- 12. ECE treatment for substructure elements** - removes the chloride ions from the vicinity of the reinforcing steel and thus eliminates the source of corrosion. Can be very effective when the source of chlorides is eliminated.

- 13. Installation of scour countermeasures** - protects the substructure elements from undermining and failure due to scour.



- 14. Removing large debris from channels** - prevents channel bed material from scouring.

- 15. Substructure concrete repairs in conjunction with installation of CP systems or ECE treatment** - proven technology for stopping the corrosion of reinforcing steel.

- 16. Installation of jackets with CP systems around concrete piles** - protects against corrosion and deterioration.



Deck, Superstructure and Substructure:



- 17. Bridge cleaning and/or washing services** - cleaning of decks, joints, drains, superstructure, and substructure horizontal elements. Slows the deterioration of concrete and steel elements since debris, bird droppings, and contaminants in conjunction with water will accelerate the deterioration of concrete and steel elements. Histoplasmosis from bird droppings is a known health hazard to inspectors and maintenance personnel.



- 18. Application of concrete sealants, coatings, and membranes for surface protection of the concrete** - protect the reinforcing steel from corrosion by stopping or minimizing the intrusion of water and chloride through the concrete.

Appendix A – National Bridge Inventory General Condition Rating Guidance

Code	Description	Commonly Employed Feasible Actions
9	EXCELLENT CONDITION	Preventive Maintenance
8	VERY GOOD CONDITION No problems noted.	
7	GOOD CONDITION Some minor problems.	
6	SATISFACTORY CONDITION Structural elements show some minor deterioration.	Preventive Maintenance; and/or Repairs
5	FAIR CONDITION All primary structural elements are sound but may have some minor section loss, cracking, spalling or scour.	
4	POOR CONDITION Advanced section loss, deterioration, spalling or scour.	Rehabilitation or Replacement
3	SERIOUS CONDITION Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.	
2	CRITICAL CONDITION Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored the bridge may have to be closed until corrective action is taken.	
1	IMMINENT FAILURE CONDITION Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.	
0	FAILED CONDITION Out of service - beyond corrective action.	

Appendix B- Bridge Element Condition State Guidance¹⁰

Condition State	Description	Commonly Employed Feasible Actions
1	Varies depending on element – Good	Preventive Maintenance
2	Varies depending on element – Fair	Preventive Maintenance or Repairs
3	Varies depending on element – Poor	Rehabilitation
4	Varies depending on element - Severe	Rehabilitation or Replacement

¹⁰ AASHTO Guide Manual for Bridge Element Inspection, first edition, 2011

Appendix C - Resources

AASHTO's TSP2 – AASHTO has created the Transportation System Preservation Technical Services Program that provides services on pavement and bridge related preservation topics. Information on TSP2 can be found at the following Web site: <http://www.tsp2.org>

AASHTO Bridge Element Inspection Manual - Contains guidance on collecting element level inspection data. This manual is available for purchase at the following web site: https://bookstore.transportation.org/collection_detail.aspx?ID=97

FHWA Resource Center – The Structures Technical Services Team provides technical assistance, technology deployment and training. Information on the FHWA RC can be found at the following Web site: <http://www.fhwa.dot.gov/resourcecenter/teams/structures/index.cfm>

FHWA Turner-Fairbank Highway Research Center - The FHWA Infrastructure Research and Development (R&D) program provides technologies and solutions to advance practices in highway infrastructure engineering. Information on the FHWA TFHRC can be found at the following Web site: <http://www.fhwa.dot.gov/research/tfhrc/programs/infrastructure/index.cfm>

FHWA Office of Bridge Technology - Offers assistance in the areas of bridge design, construction, inspection and preservation. Information on the FHWA Office of Bridge technology can be found at the following Web site: <http://www.fhwa.dot.gov/bridge/>

FHWA Office of Asset Management - Offers assistance in the areas of system preservation techniques, pavement and bridge management systems, and materials usage and economic analysis tools. Information on the FHWA Office of Asset Management can be found at the following Web site : <http://www.fhwa.dot.gov/infrastructure/asstmgmt/index.cfm>

FHWA's Recording and Coding Guide for the Structure, Inventory and Appraisal of the Nation's Bridges is located at: <http://www.fhwa.dot.gov/bridge/bripub.htm>

Appendix D –Preventive Maintenance Eligibility Memorandum



U.S. Department of
Transportation
**Federal Highway
Administration**

MEMORANDUM

Subject: **ACTION:** Preventive Maintenance Eligibility

Date: October 8, 2004

From: /s/ Original signed by:
King W. Gee
Associate Administrator for Infrastructure

Refer To: HIAM-20

To: Directors of Field Services
Division Administrators
Federal Lands Highway Division Engineers

Timely preventive maintenance and preservation activities are necessary to ensure proper performance of the transportation infrastructure. Experience has shown that when properly applied, preventive maintenance is a cost-effective way of extending the service life of highway facilities and therefore is eligible for Federal-aid funding. By using lower-cost system preservation methods, States can improve system conditions, minimize road construction impacts on the traveling public, and better manage their resources needed for long-term improvements such as reconstruction or expansion. Preventive maintenance offers State DOT's a way of increasing the return on their infrastructure investment.

During the 1990's, Congress incrementally broadened, through legislation, the applicability of Federal-aid funding to preventive maintenance activities. Congress' acknowledgement of preventive maintenance activities as an eligible activity on Federal-aid highways is a logical step that reinforces the importance of implementing a continuing preventive maintenance program. Each of these actions was conveyed to the field through a series of memoranda. This policy memorandum supersedes the related memoranda listed in the attachment.

The FHWA division offices have an important role in promoting system preservation and are encouraged to work closely with their State DOT counterparts to establish a program that identifies eligible preventive maintenance measures for all roadway assets on Federal-aid highways. The AASHTO defined preventive maintenance "as the planned strategy of cost effective treatments to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system without increasing structural capacity." Projects that address deficiencies in the pavement structure or increase the capacity of the facility are not considered preventive maintenance and should be designed using appropriate 3R standards. Functionally, Federal-aid eligible preventive maintenance activities are those that address aging, oxidation, surface deterioration, and normal wear and tear from day-to-day performance and environmental conditions. Preventive maintenance activities extend the service life of the roadway asset or facility in a cost-effective manner.

Division offices should proactively work with their State partners to establish a preservation component, which is composed of various preventive maintenance activities and treatments. These include roadway activities such as joint repair, seal coats, pavement patching, thin overlays, shoulder repair, restoration of drainage systems, and bridge activities such as crack sealing, joint repair, seismic retrofit, scour countermeasures, and painting. Many other activities that heretofore have been considered routine maintenance may be considered Federal-aid eligible on an area-wide or system-wide basis as preventive maintenance (i.e., extending the service life). This might include such work items as regionwide projects for periodic sign face cleaning, cleaning of drainage facilities, corrosion protection, spray-applied sealant for bridge parapets and piers, etc. These typical preventive maintenance work items are not intended to be all-inclusive but are rather a limited list of examples.

The final eligibility determination should be the result of collaboration between the division and the State DOT. This determination should be based on sound engineering judgment and economic evaluation, allowing flexibility in determining cost-effective strategies for extending the service life of existing pavements, bridges, and essential highway appurtenances on Federal-aid highways.

All preventive maintenance projects should consider appropriate ways to maintain or enhance the current level of safety and accessibility. Isolated or obvious deficiencies should always be addressed. Safety enhancements such as the installation or upgrading of guardrail and end treatments, installation or replacement of traffic signs and pavement markings, removal or shielding of roadside obstacles, mitigation of edge drop offs, the addition of paved or stabilization of unpaved shoulders, or installation of milled rumble strips should be encouraged and included in projects where they are determined to be a cost effective way to improve safety. To maintain preservation program flexibility, and in accordance with

23 U.S.C. 109(q), safety enhancements can be deferred and included within an operative safety management system or included in a future project in the STIP. In no way shall preventive maintenance type projects adversely impact the safety of the traveled way or its users.

As with any Federal-aid project, adequate warning devices for highway-rail grade crossings within the project limits or near the terminus shall be installed and functioning properly per 23 CFR 646 before opening the project to unrestricted use by traffic. For projects on the NHS, all traffic barriers shall comply with the FHWA September 29, 1994, memorandum entitled Traffic Barrier Safety Policy and Guidance, signed by E. Dean Carlson. This work can be accomplished by force account or through other existing contracts prior to final acceptance.

The FHWA supports the increased flexibility for using Federal-aid funding for cost-effective preventive maintenance. The Maintenance Quality Action Team (MQAT) is developing technical guidance on preventive maintenance activities and transportation system preservation as a whole; that technical guidance is under development and will be issued in the near future. For further information please contact Christopher Newman of the Office of Asset Management, at (202) 366-2023 or Christopher.newman@fhwa.dot.gov, or visit the Transportation System Preservation website at <http://www.fhwa.dot.gov/preservation/>.

Attachment

Attachment: Memoranda Superseded by Preventive Maintenance Memorandum

01/27/04 Stewardship of Preservation and Maintenance
01/11/02 [HBRRP Funds For Preventive Maintenance \(23 U.S.C. 116\(d\)\)](#)
10/30/98 Implementation of TEA-21 Interstate Maintenance Guidelines
08/19/98 Phase Construction for Safety Considerations
06/18/97 Transportation System Preservation
03/21/96 [Preventive Maintenance Revision to 23 U.S.C. 116](#)
10/12/93 [Safety and Geometric Considerations for Interstate Maintenance Program Projects](#)
06/14/93 [Interstate Maintenance Program](#)
07/27/92 [Preventive Maintenance](#)

05/21/92 [1991 Intermodal Surface Transportation Efficiency Act \(ISTEA\) Implementation Interstate Maintenance Program](#)

Response to Comments Document

PREPARED FOR
SONOMA COUNTY
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS

WATMAUGH ROAD BRIDGE OVER SONOMA CREEK REPLACEMENT PROJECT

Bridge #20C-0017
04-SON-0-CR
P.M. 11.83 to 11.91

State Clearinghouse SCH #2012082037

December, 2012



**Sonoma County Permit and Resource Management Department
Environmental Review Division
2550 Ventura Avenue
Santa Rosa, California 95403**

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Appendix C. Habitat Assessment for the California Freshwater Shrimp at Three Bridges on Sonoma Creek, January, 2000

CHAPTER I

Introduction

A. CEQA Process

On October 1, 2012 the County of Sonoma (the Lead Agency) released for public review a Draft Environmental Impact Report (Draft EIR or DEIR) on the proposed Watmaugh Road Bridge Replacement Project. A 45-day public review and comment period on the Draft EIR began on October 1, 2012, and closed on November 14, 2012. The County also held a public hearing to receive oral public comment on the Draft EIR at the Sonoma County Board of Supervisors on October 16, 2012.

The Draft EIR for the proposed Watmaugh Road, together with this Response to Comments Document, constitutes the Final EIR for the proposed project. The Final EIR is an informational document prepared by the Lead Agency that must be considered by decision-makers before approving the proposed project (CEQA *Guidelines*, Section 15090). California Environmental Quality Act (CEQA) *Guidelines* (Section 15132) specify the following:

“The Final EIR shall consist of:

- (a) The Draft EIR or a revision of that draft.
- (b) Comments and recommendations received on the Draft EIR either verbatim or in a summary.
- (c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
- (d) The responses of the Lead Agency to significant environmental points raised in review and consultation process.
- (e) Any other information added by the Lead Agency.”

This document has been prepared pursuant to CEQA and in conformance with the CEQA *Guidelines*. This Response to Comments Document incorporates comments from public agencies and the general public, and contains appropriate responses by the Lead Agency to those comments.

B. Method of Organization

This EIR Response to Comments Document for the proposed Watmaugh Road Bridge replacement project contains information in response to comments raised during the public comment period.

Chapter I describes the CEQA process and the organization of this Response to Comments Document.

Chapter II contains a list of all persons and organizations that made spoken comments on the Draft EIR during the public review period.

Chapter III contains responses to the comment letters and public hearing minutes, and the responses to those comments. Within each letter and public hearing minutes, individual comments are labeled with a number in the margin. Immediately following the comment letter are responses to each of the numbered comments. Copies of the original comment letters are included in Appendix A.

Chapter IV contains errata identifying text changes to the Draft EIR. Some changes were made by the County; others were made in response to comments received on the Draft EIR

CHAPTER II

Persons Commenting at the Public Hearing

A public hearing on the Draft EIR was held by the County on October 16, 2012. The following individuals provided spoken comments on the Draft EIR:

- Gail Johnson
- Patricia Daffurn

CHAPTER III

Written and Spoken Comments on the Draft EIR and Responses to Comments

This chapter contains copies of the comment letters during the public review period on the Draft EIR, and the individual responses to those comments. Each written comment letter is designated with a letter (A through H) in the upper right-hand corner of the letter. Spoken comments on the Draft EIR are also included in the Board of Supervisors Hearing Minutes.

Within each written comment letter, individual comments are labeled with a number in the margin. Immediately following each comment letter is an individual response to each numbered comment. Where responses have resulted in changes to the Draft EIR, these changes also appear in Chapter V of this Response to Comments Document.

**Letter A. State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit
(Scott Morgan, Director)**

A-1 Comment: The comment acknowledges the County's compliance with the State Clearinghouse review requirements for draft environmental documents pursuant to the California Environmental Quality Act. The letter also discusses a correction that was made by the Clearinghouse and apologizes for any inconvenience.

Response: The comment is acknowledged.

Letter B. Kenneth and Betsy Niles

Attached to this comment letter are two letters as follows (as B-1 and B-2):

- B-1 Comment: The commenter states that Sonoma County should contact the Sonoma Ecology Center and any Sonoma Creek any Sonoma Creek associations for preservation of Sonoma Creek for review.

Response: Sonoma County mailed a copy of the DEIR to the Sonoma Ecology Center on September 27, 2012, and no response has been received.

- B-2 Satinder P. Singh, Ph. D., (undated).

The undated letter from Mr. Singh states his credentials as a Structural Engineer and his experience in engineering, preparing seismic evaluations and other related activities but provides no comment on the proposed project.

Response: None.

- B-3 Comment: The commenter states that Sonoma County should contact additional agencies that would include the Sonoma Ecology Center and any Sonoma Creek association for preservation of Sonoma Creek for review.

Response: CEQA defines agency narrowly to include public agencies and governmental entities that have some jurisdiction over the approval or permitting of a proposed project. While the Sonoma Ecology Center is not an agency under CEQA, Sonoma County mailed a copy of the DEIR to the Sonoma Ecology Center on September 27, 2012, and no response has been received. In addition, the County did send copies of the DEIR to the following resource protection organizations and agencies: California Native Plant Society, the Sierra Club, the Madrone Audubon Society, US Army Corps of Engineers Regulatory Branch, California Department of Fish and Game, and Sonoma County Conservation Action, and public copies of the DEIR were available on the County DTPW website and at the Main Branch and the Sonoma Valley Regional Library, offices of Sonoma County PRMD, and the offices of Sonoma County DTPW.

- B-4 Comment: The commenter states that the summary of the proposed project should include the wishes of the majority of the Board of Supervisors to design the replacement bridge so that the steel trusses appear meaningful and authentic.

Response: Contrary to the commenter's assertion, the Draft EIR does study a design that more authentically integrates the steel trusses. Alternative 4, Replace Existing Bridge with a Steel Arch, discussed on page 7-10 of the Draft EIR, addressed the Board of Supervisors comment. This alternative would construct a new bridge with design elements that would be integrated into the structure and function of the bridge. The Draft

EIR found that this alternative would have the same impacts as the proposed project but would cost substantially more, with funding being required from the County, as the project would not be fully funded by the FHWA. Moreover, Aesthetics Mitigation A-2 expressly addresses this concern with respect to the project as proposed by requiring that the proposed replacement bridge design shall include new period correct lattice rails, and further mandating that the other visually prominent elements of the existing bridge shall be incorporated into the proposed bridge to the degree feasible without compromising the structural integrity of project. Where using existing bridge components would not be practical, new materials shall be treated to blend with reused bridge elements and the surrounding rural community. Implementation of this mitigation will ensure the steel trusses appear integrated.

- B-5 Comment: The commenter asks if guardrails may be minimized so that the trusses can be more visible and asked for an explanation of the design review process, including which jurisdictions approve the design, and further asserted that the public and the Landmarks Commission should be involved.

Response: The approach guardrail design depicted in the photo simulations may or may not be used in the final design the final design will be refined through the CEQA review and other public processes. The final choice of the type of guardrail depends on safety for motorists, cyclists and pedestrians, and is based on Caltrans accepted standards that are based on roadway type, speeds, geometrics, etc. The project has been through the Landmarks process and further involvement of the Commission is not required or anticipated at this time. The CEQA process is intended to assess the physical impacts to the environment associated with the proposed project. Design concerns will be addressed as part of the decision maker's review of the project merits. The public disclosure and review of the environmental impacts associated with the replacement of the existing bridge is being addressed by the Draft EIR and the responses to public comments and will conclude with the Certification of the EIR.

- B-6 Comment: The commenter suggests that the project could be simplified if the replacement bridge were reduced to 4-ft shoulders reducing the overall deck to a 30-ft width and asserts that this design would:

1. Improve the appearance and authenticity of the trusses.
2. Discourage speeders from crossing over the shoulder line.
3. Possibility eliminates the need for additional right-of way take.
4. Help preserve the biological resources including trees.

Response: The original bridge replacement project as described at a public information meeting in May of 2010 had a 40-ft bridge deck with 8-ft shoulders and 12-ft travel lanes. The 5-ft shoulders with two 11-ft travel lanes design now proposed represents the minimum roadway configuration necessary to provide adequate safety for vehicles, cyclists, and pedestrians, accommodate the trusses of the existing bridge and still meeting the objectives of the project and the concerns of the public.

- B-7 Comment: The commenter raises concerns regarding the steelhead fisheries, specifically the proposed project impacts on the winter steelhead run and provided some historical information regarding the transport and placement of steelhead eggs in rivers in New Zealand.

Response: The Initial Study, included as Appendix D of the Draft EIR, contains a detailed discussion of the proposed projects potential impacts to Sonoma Creek, included fisheries. See Section 4, Biological Resources (found on pages 14-21 of the Initial Study) for this discussion. The Initial Study determined that the project has the potential to have a substantial adverse effect on special-status animal species that were identified as having the potential to occur on or within the vicinity of the project site. These species include but are not limited to steelhead trout, California freshwater shrimp, and western pond turtle. Additionally, replacement of the Watmaugh Road Bridge could potentially impact these identified species including steelhead and California freshwater shrimp and their habitats. Several mitigation measures were included in the IS, and range from conditions that limit the time of year that work below the top of bank can occur, to water quality conditions which was appended to the DEIR and will be implemented if the project is approved and constructed. Finally, the relevance of the historical information offered by the commenter regarding the transplant of steelhead salmon from Sonoma Creek to New Zealand is unclear. More importantly, it appears to have no bearing on the project's potential impacts on biological resources in the project area. Accordingly, historical information regarding the transport and placement of steelhead eggs into rivers in New Zealand is acknowledged and will be forwarded to and considered by the County of Sonoma Board of Supervisors

- B-8 Comment: The commenter refers to page 4-5 of the DEIR, which states that there will be no increase in traffic levels, and goes on to raise concerns regarding vehicle speeds and the commenter's perception that speeds would increase across the bridge after the new bridge is constructed due to the increased width of the bridge deck. The commenter suggests that the County include speed reduction mitigation.

Response: The speed limit through the project area is currently posted at 35 MPH and no increase in that speed limit is planned as part of this project. Local law enforcement is responsible for controlling traffic at safe speeds and is outside of CEQA. Additional speed reduction measures, such as speed bumps, could be used at the project site in conjunction with the existing signage, at DTPW traffic engineer's discretion; however, the project is not expected to result in increased traffic speeds or environmental impacts related to increase vehicle speeds. The potential that certain motorists may exceed the posted speed limit is not a physical impact on the environment properly attributed to the proposed project. The control of such behavior is properly dealt with through law enforcement, not by imposing mitigation impermissibly on the proposed project.

- B-9 Comment: The commenter refers to page 4-17 of the DEIR and raises concerns regarding proposed work days during weekends and the proposed 7:00 AM initiation of work on weekdays.

Response: The County's contractor would be allowed to work from 7:00 am to 7:00 pm on weekdays and 9:00 am to 5:00 pm on Saturday's, with no work on Sunday's or holidays. These construction hours are a universally accepted standard and are utilized by the County on virtually all development projects. Adhering to these hours of construction will minimize noise disturbance to nearby residents and will actually reduce the overall magnitude of other impacts that would result from a two or more construction season work window.

- B-10 Comment: The commenter refers to page 5A-10 and suggests that the simulated photo B does not meet the description of Mitigation Measure A.

Response: The crash rail used in the photo simulation is based on preliminary 30% plans and while it is very likely to be similar to this design, it is not necessarily the exact type that will be used for the project. This is a typical type that is used for bridges and was not intended to depict the final design that will be built to comply with mitigation measure A-2, which requires that the proposed replacement bridge design include new period correct lattice rails and incorporate other visually prominent elements of the existing bridge to the extent feasible to reduce any potential impact to aesthetics to a less-than-significant level. The final design will be refined through the CEQA review and other public processes, as with all projects.

- B-11 Comment: The commenter raises concerns on the effects of the increase bridge elevation of 4-ft to the existing driveways located along Watmaugh Road.

Response: The approach roadway will be designed to accommodate the existing driveways in the project area. Driveways may need to be modified. Any such modifications would be determined during the detailed design phase and would be constructed by the County as part of project implementation.

- B-12 Comment: The commenter noted that, in an effort to make the existing trusses added to the new bridge appear historic; the approach guardrails could be concrete rails and not the lattice type rails as proposed.

Response: The existing guardrail is a 1970s w-section rail that replaced the existing steel lattice rail. The proposed new lattice type guardrail would be located on the new bridge and not the approach guardrails and is that designed to integrate the historic elements more seamlessly into the design of the new bridge. See response to Comment B-3 for a discussion of the design of the approach guardrails.

- B-13 Comment: The commenter stated that it is probable that the existing bridge does meet more than one criteria for historic eligibility due to the significance of the Pony Steel Truss and the four historic homes adjacent to the bridge. Commenter further stated the County should have another expert make a determination of the current criteria for historic eligibility.

Response: The commenter incorrectly implies that because the Draft EIR relies on the expert testimony of one cultural resource expert, Tom Origer and Associates, to conclude that the existing bridge is not eligible for listing on the National Register that the Draft EIR is somehow flawed. Credible expert testimony, when uncontradicted, constitutes substantial evidence in support of the conclusion asserted. Tom Origer and associates prepared the cultural resource documents for use in the DEIR and are qualified to prepare reports that evaluate historical architecture, including eligibility determinations for buildings and structures of all types, pursuant to the California Environmental Quality Act and the National Historic Preservation Act. The commenter offers no evidence to contradict the expert testimony provided by Tom Origer and Associates, but rather summarily asserts that the County should have another expert make a determination of the current criteria for historic eligibility. CEQA imposes no such requirement on the lead agency.

- B-14 Comment: The commenter refers to page 5B-8 and raises concerns over the projects impacts to possible artifacts in the creeks such as arrowheads, utensils, and bowls.

Response: The Initial Study, included as Appendix D of the Draft EIR, contains a detailed discussion of the proposed project's potential impacts to cultural resources. See Section 5, Cultural Resources (found on pages 21-23 of the Initial Study) for this discussion. The Initial Study determined that the project has the potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. Although there are no known archaeological resources on the site, the project could uncover such materials during construction. To mitigate any potential impacts to archaeological resources, the Initial Study included mitigation (Page 22 of the IS Cultural Resource Mitigation 2) to reduce the impact to insignificance if archaeological materials were discovered.

- B-15 Comment: The commenter refers to page 5C-9 of the Draft EIR and cites page 3.1 of the FEMA flood profile is established at the bridge site at elevation 45. The commenter describes the flood of 2005, which he describes as the 100-year flood, cresting about 4-ft below the bottom of the existing bridge. He then describes the existing bridge deck at 49-ft and 4-ft higher than FEMA requirements and a perceived 8-ft higher than the flood of 2005 (the 100-year flood event). He then states the existing bridge cannot flood during the 100-year event as demonstrated by the 100-year flood of 2005. The commenter feels that since the project will increase the elevation of the bottom of the bridge by 4-ft (8-ft higher than the perceived 100-year flood elevation) this may increase flood hazard to nearby residents. He then suggests several justifications for exemptions from regulations that may require that the project be built to that elevation and suggests the possibility of new levees or a similar beam profile as the original bridge design. He also suggests that local driveway access would be impaired from the raised approach roadway on to Watmaugh Road and nearby homes may be subject to flooding due to damming effects of the raised roadway.

Response: A Location Hydraulic Study was completed for the project site in 1999 and determined the 100-year flood event with a high level of accuracy. Additional study of the flood profile has been completed recently as well and it describes the 2005 storm that the commenter refers to as the 500 year event and Sonoma Creek did in fact flow above the bottom of the bridge soffit and posed a threat to the existing bridge. The replacement bridge project will be designed so that to have 1-ft of freeboard above the 100-year event and will not act as a dam during the 100-year event as suggested. In the vicinity of the bridge, Sonoma Creek does not leave its banks in a 100-year flood event, thus any minor additional fill needed for the road approaches would not in any way cause flooding on adjacent properties.

The potential for reducing sight distance at nearby driveways by raising the bridge four feet four feet and the effects on nearby driveways will be addressed during the detailed design phase of the project such that the driveways will meet all necessary sight distance requirements.

- B-16 Comment: The commenter refers to page 7-6 of the DEIR, specifically to the first paragraph “the bridge would be at a level that would be less than significant and would generally avoid the significant impact to the historic resource associated with the proposed project.” The Commenter feels that this statement is inaccurate as the Landmarks Commission and the Sonoma County League for Historic Preservation have stated that the historic resource would be destroyed by building a modern bridge next to it and feels this should be included in the EIR.

Response: This statement is actually found on page 7-9 of the DEIR. Tom Origer and Associates (TOA), an environmental historical consultant, was retained to assist in the analysis on the alternatives, including the downstream bridge alternative. It was determined by TOA and was reflected in the DEIR that while this alternative would retain the existing bridge, it would alter the setting dramatically, which would be an impact to the integrity of the bridge and therefore its historic value. However, the remaining elements of historical integrity (location, design, materials, workmanship, feeling, and association) would remain intact. The alteration to the setting of the bridge was reduced by the incorporation of mitigation that retained as much of the riparian area between the two bridges as possible and planting additional trees in the space available.

- B-17 Comment: The commenter refers to page 7-7 of the DEIR and states that the in the section of the DEIR, the County should discuss the excessive delay in the project due to the acquisition of right-of way if Alternative 2 is selected.

Response: The duration of the right-of -way process is speculative and a lengthy delay would not likely result in additional environmental impacts. More importantly, since the DEIR concluded that Alternative 2 does not avoid the significant impacts associated with the project and, in fact, introduces some additional significant and unavoidable impacts, any delay associated with acquiring additional right-of-way would merely provide further support for rejecting this alternative.

- B-18 Comment: The commenter refers to the fact the DEIR fails to discuss the “Heritage” cypress trees that could be removed by the propose project. The commenter then proceeds to describe that the loss of the Heritage trees cannot be mitigated and only alternative 3 would preserve them.

Response: In 1986, the Board of Supervisors adopted the Sonoma County Heritage or Landmark Tree Ordinance (no. 3651). This Ordinance established a means for the Board of Supervisors to recognize certain Heritage or Landmark trees in Sonoma County. A "Heritage tree" means a tree or grove of trees so designated by the Sonoma County Board of Supervisors because of historical interest or Significance, and a "Landmark tree" means a tree or grove of trees so designated by the Sonoma County Board of Supervisors because of its outstanding characteristics in terms of size, age, rarity, shape or location. The cypress trees discussed by the commenter are not currently identified on the County's list of heritage trees and several of the existing cypress trees near the project location appear to be severely pruned and are dead or compromised. In addition since none of the currently live cypress trees would be removed by the proposed project, and the County is not subject to this ordinance in any case, there would be no addition impact that would not be covered in the IS or DIER.

- B-19 Comment: The commenter refers to page 7-9 of the DEIR and states that the paragraph in this section contradicts the expert opinions of engineers that have evaluated the bridge and requests that the County include the opinions of all engineers. The commenter goes further to state that:

1. The alternative would not likely require the replacement of the existing piers (and refers to and attached engineering report).
2. The restoration would not significantly alter the appearance of the historic bridge and only people in the creek would notice the changes to the piers (while the traveling public would not detect any change).

Response: During the Landmarks Commission Review and CEQA process there has been disagreement between private engineers hired by the commenter and by Sonoma County DTPW engineering staff. Most of the disagreement has been over the scope of what is needed to adequately address the structural decencies and safety concerns with the existing Watmaugh Road Bridge. On November 7, 2012, Caltrans independently responded to a letter (from this commenter) unequivocally stating that the existing bridge is considered to be functionally obsolete, structurally deficient, and scour critical. The Caltrans letter further stated that the existing bridge has a sufficiency rating of 5/100, making it is one of the worst rated bridges in California. Essentially, Caltrans concurs with Sonoma County engineering staff that the range of options chosen for this project are reasonable and appropriate for the situation.

Letter C. Lorraine A. Wedekind

- C-1 Comment: The commenter describes her concern with the plan that illustrates a guardrail design that would extend 60-ft in each direction, blocking her driveway.

Response: The placement of the guardrail protection for the new bridge is a detail of the engineering design. Once the final bridge layout is determined, project elements such as guardrails will be considered. No driveways will be closed off, and all property owners would continue to have full access following project construction.

- C-2 Comment: The commenter expresses her concerns on the increased height of the bridge (4-ft higher than the existing bridge) and the potential negative effect that it would have on her sight-distance, hindering her ability to exit her driveway.

Response: Although no final grades for the approaches to the bridge have been determined, the ultimate grades will be designed to accommodate access from existing driveways. Some re-grading of driveway approaches to the road may be necessary to make a smooth transition for to access Watmaugh Road. This would be implemented by the County during project construction.

- C-3 Comment: The commenter expresses her concerns on the banking (i.e., the final slope) of the northern lane in conjunction with new guardrail obstructing her sight-distance hindering her ability to safely leave her driveway.

Response: There may be some slight superelevation (banking) of the roadway to provide for safe travel across the bridge. If needed, all driveways will be modified as necessary to provide adequate sight distance for safe exiting driveways.

- C-4 Comment: The commenter expresses her concerns on work days and hours of construction. More specifically, she states that there are elderly people that live immediately adjacent to the bridge and the work hours should be limited to Monday-Friday 8:00 am to 5:00 PM, with no work on weekends and holidays.

Response: See response to Comment B-7.

- C-5 Comment: The commenter raises concerns that a new construction access road may be built on or crossing her driveway causing unacceptable disruptions to herself, visitors or possibly limiting access to emergency vehicles.

Response: The construction will necessitate that the contractor gain access to the creek; however, they cannot cross private property without permission from the owner. As described on Page 3-5 under construction methods, access would be from the southeast side of the bridge. In addition, a temporary access road may be needed on the west side of the bridge. If access is needed on the northeast side of the bridge, it will be from the

existing road right of way, and will be designed such that it will not affect any neighboring access to private property.

- C-6 Comment: The commenter expressed her concern that after the project is complete the access road to the creek should be fenced and locked to discourage public access to the creek that may result in vandalism.

Response: Page 3-6 of the DEIR states that following construction, the access down the bank, and other disturbed areas, will be re-graded to match existing topography. After the access road is eliminated, it will be revegetated in order to reestablish the pre-project site conditions.

- C-7 Comment: The commenter raises concern over the location of the project staging area. The commenter suggests that to reduce noise during construction the staging area should be located on the west side of the bridge away from existing residences.

Response: While the specific location of the staging area was not described in the Draft EIR, the project staging area would be located within a closed portion of the existing ROW during construction. In addition, if areas outside the road ROW are needed for staging, it would occur on the west side of the bridge, given this is the location with the most available space to use for staging.

- C-8 Comment: The commenter expresses concern over impacts to her entrance, including landscaping, fences and her driveway.

Response: The effects of the proposed project of private landscaping, fences and access routes are expected to be negligible, and private residences would be compensated for damages during the right of way process for any fencing and landscaping impacted on their property.

- C-9 Comment: The commenter wishes to be assured that her drainage would not be affected by the proposed project.

The commenter is referred to page 4-7 of the Draft EIR under Hydrology and Water Quality, 9.d (Taken from the Initial Study). The new bridge would not significantly affect the existing drainage patterns of the site. Flooding may intermittently occur at the project site after large storm events, as it does currently, and the minor alteration of drainage patterns associated with the project will not add to the frequency of flooding at the project site. Therefore, a less-than-significant impact caused by flooding is anticipated with the implementation of the proposed project.

- C-10 Comment: The commenter expresses concerns that the new wider bridge will encourage higher vehicle speeds resulting in ongoing safety concerns by the local residents.

Response: Please see the response to comment B-6.

Letter D. Law Office of Rose M. Zoia

Introduction

The commenter (Rose M. Zoia, from the Law Office of Rose M. Zoia) submitted a comment letter that contained a substantial number of attachments and exhibits, including both new and re-submitted information. This Introduction provides context for how the County has considered all relevant issues raised by the commenter.

The letter dated November 12, 2012, was titled *Watmaugh Bridge Replacement Project DEIR Comment Letter*. Comment Letter D contained six attachments. These attachments, labeled as Attachments D-1 through D-6, respectively, in this Response to Comments Document), include: Appendix G – The Environmental Checklist Form from the CEQA Guidelines; a letter from Rose M. Zoia dated July 23, 2012, prior to the Notice of Preparation (“NOP”) for the Draft EIR commenting on the request before the Board of Supervisors to award a design contract to prepare the design plans and specifications for the Watmaugh Bridge replacement project; a letter from Rose M. Zoia dated July 30, 2012, prior to the Notice of Preparation (“NOP”) for the Draft EIR requesting that the Board of Supervisors deny a request to award a design contract to prepare the design plans and specifications for the Watmaugh Bridge replacement project; a letter from Rose M. Zoia dated August 1, 2012, prior to the Notice of Preparation (“NOP”) for the Draft EIR challenging the action of the Board of Supervisors to award a design contract to prepare the design plans and specifications for the Watmaugh Bridge replacement project; a letter from the California Department of Fish and Game (“DFG”) dated September 4, 2012, submitted in response to the NOP for the Draft EIR; and a letter from Caltrans dated August 21, 2012, submitted in response to the NOP for the Draft EIR.

All of the attachments are re-submitted information that has been previously submitted to the County, either by this commenter or other agencies. To the extent new substantive comments are raised in Comment Letter D and its accompanying attachments, those issues are responded to in this Response to Comments Document. As relevant, the prior submittals of information have previously been considered by County staff in the context they were made and either responded to or considered in the preparation of the Draft EIR, as appropriate. To the extent the submitted material bears no direct relation to the project being considered in the Draft EIR, and commenter has provided no explanation to show the application of the submitted material to the analysis set forth in the Draft EIR, this Response to Comments Document so notes.

In summary, all of the comments submitted by the commenter have been carefully considered and evaluated with respect to whether they present significant environmental points relevant to the proposed project and the alternatives to the proposed project considered in the Draft EIR. The table below provides a summary of the comment letter and its various attachments, including a reference for how each letter component is referred to the Response to Comments Document, a description of each letter component (author, description, and date), and the status of each attachment (i.e. whether the submittal is new, a re-submittal that pre-dates the NOP and Draft EIR, or was previously submitted in response to the NOP).

SUMMARY OF COMMENT LETTER D

Letter Reference Use In Response to Comments Document	Submittal	Author	Description	Date	Status of Each Submittal
D	Letter	Rose M. Zoia	Comments on Draft EIR	11/12/12	New
D-1	Attachment	Office of Planning and Research	Appendix G Environmental Checklist Form (CEQA Guidelines)	N.A.	N.A.
D-2	Attachment	Rose M. Zoia	Letter to BOS regarding Procedure for July 31, 2012 meeting on Watmaugh Bridge Replacement Project	7/23/12	Re-submittal Predates NOP
D-3	Attachment	Rose M. Zoia	Letter to BOS regarding July 31, 2012 hearing on Watmaugh Bridge Replacement Project	7/30/12	Re-submittal Predates NOP
D-4	Attachment	Rose M. Zoia	Letter to BOS challenging action to award design contract for Watmaugh Bridge Replacement Project	8/01/12	Re-submittal Predates NOP
D-5	Attachment	California Dept. of Fish & Game	Comments on Watmaugh Bridge Replacement Project Notice of Preparation	9/4/12	Response to NOP - Duplicates material independently submitted
D-6	Attachment	Caltrans	Comments on Watmaugh Bridge Replacement Project Notice of Preparation	8/21/12	Response to NOP - Duplicates material independently submitted

Responses to Letter D

- D-1 Comment: The comment provides an overview of CEQA’s requirements for assessing potential impacts to historical resources; restates the principle that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant impact on the environment; and notes that CEQA requires an EIR to study feasible and environmentally superior alternatives.

Response: The County is well acquainted with CEQA’s requirements and does not dispute that CEQA’s mandate requires the County to fully assess and disclose the potential impacts to historical resources. The Draft EIR openly acknowledges the potential adverse change the project may cause to the significance of the Watmaugh Bridge and includes a complete and thorough analysis of this impact in Section 5B, Cultural Resources. The Draft EIR identifies feasible mitigation – including Cultural Resource Mitigation Measure C-1 (requiring the production of a photo archive of the Watmaugh Bridge) and Aesthetics Mitigation Measure A-2 (requiring the design of the new bridge to include historically accurate elements and incorporate visually prominent elements of the existing bridge to the extent feasible) – to reduce the impact resulting from the removal of this local historic resource. The County will implement this mitigation if it proceeds with the proposed project. However, even with the implementation of the identified mitigation, the Draft EIR found that the impact to the historic Watmaugh Bridge would remain significant and unavoidable, a fact the Draft EIR openly discloses. For a more complete analysis of the impacts to this historic resource, please see the discussion set forth in Sections 5B of the Draft EIR.

Further, as required by CEQA, the Draft EIR considers a reasonable range of alternatives. The commenter incorrectly asserts that the DEIR must “analyze feasible and *environmentally superior alternatives* to the project as proposed.” (Italics added for emphasis.) This argument presupposes the existence of an environmentally superior alternative that could eliminate all of the significant effects associated with the proposed project and misstates CEQA’s mandate. The CEQA Guidelines clearly state that an EIR must “describe a range of reasonable alternatives to the project . . . which would *feasibly attain most of the basic objectives of the project* but would avoid or lessen any of the significant effects of the project . . .” (Cal. Code Regs., title 14, § 15126.6, subd. (a) [emphasis added].) CEQA defines “feasible” as “capable of being accomplished in a successful manner within a reasonable period of time, taking in account economic, environmental, social, and technological factors.” (Cal. Pub. Resources Code § 21061.1; Cal. Code Regs., title 14, § 15364.)

The Draft EIR analyzed six alternatives in depth – Alternative 1 (No Project); Alternative 2 (Construction of Downstream Bridge Leaving Existing Bridge in Place); Alternative 3 (Rehabilitate Existing Bridge); Alternative 4 (Replace Existing Bridge With Steel Arch Bridge); Alternative 5 (Rehabilitate Existing Bridge and Add a Parallel Bicycle/Pedestrian Bridge Downstream); and Alternative 6 (Rehabilitate Existing Bridge and Add a One-Way Bridge for Traffic and Bicycle/Pedestrians Downstream). The Draft

EIR also considered two additional alternatives – (1) Seismic Retrofit Existing Bridge to meet No Collapse Criteria and (2) Construct a New Parallel Bridge Upstream Leaving Existing Bridge in Place – but eliminated them from further study. The seismic retrofit alternative was rejected because it would not meet the majority of the project objectives to address structural and safety deficiencies other than seismic safety, and therefore, was determined to be infeasible. The parallel upstream alternative was determined to avoid the significant unavoidable impact to cultural resources by retaining the bridge, but was rejected because it would introduce new significant impacts to noise and land use.

With the exception of Alternative 1—the No Project Alternative, the Draft EIR found that each of the remaining alternatives identified in Section 7 (Alternatives) either would not sufficiently achieve the basic objectives of the Project, would not be technologically or economically feasible, or would meet the project objectives only with unacceptable adverse environmental impacts.

- D-2 Comment: The comment summarizes CEQA’s mandate that an EIR must identify ways to mitigate or avoid the significant effects of the project and asserts that this mandate requires that the EIR must include an environmentally superior alternative. The comment goes on to contend that “a rehabilitation/retrofit alternative would be feasible, environmentally superior, and would meet the project objectives, at least to some degree.”

Response: As discussed in the response to comment D-1, above, the Draft EIR did study a reasonable range of alternatives designed to reduce or avoid the significant effects of the proposed project. These alternatives included three rehabilitation scenarios (Alternatives 3, 5 and 6) which were studied in depth and one retrofit alternative that was not carried forward for further study (see discussion in Section 7.4 of the Draft EIR). Each of these alternatives was studied because of their ability to reduce or eliminate significant effects associated with the proposed project. Contrary to the commenter’s assertions, none of these Alternatives were found to be feasible or environmentally superior to the proposed project. The basis for these determinations are discussed below.

As discussed in response D-1, above, the seismic retrofit alternative was rejected because it would not meet the majority of the project objectives to address structural and safety deficiencies other than seismic safety. As discussed in depth in Section 7.4A of the Draft EIR, a seismic retrofit would not (i) address structural deficiencies related to scour of the bridge foundation, (ii) increase load limits and shoulder widths, or (iii) improve sight distance and road alignment. In 2002, a previous seismic retrofit project under consideration for Watmaugh Bridge was terminated in response to the California Department of Transportation (Caltrans) finding that degradation of the creek had exposed the bridge foundations, classifying the bridge as scour critical, which is a condition that could result in structural failure during future high winter flows. Thus, the retrofit of the existing bridge was determined to be infeasible and eliminated from further study.

Alternative 3 (Rehabilitate Existing Bridge) meets the majority of the project objectives. However, the Draft EIR found that Alternative 3 would result in similar impacts to aesthetics as the proposed project, and while the rehabilitation of the existing bridge would avoid the complete loss the historic resource associated with the proposed project, the extensive alterations to rehabilitate the bridge would result in major changes to the integrity of materials, workmanship, and feeling of the bridge that would be equal to the impacts on historic resource from the proposed project. Thus, Alternative 3 would result in substantial adverse impact to the historical significance of the bridge and, therefore, is not environmentally superior to the project as proposed.

Alternative 5 (Rehabilitate Existing Bridge and Add a Parallel Bicycle/Pedestrian Bridge Downstream) similarly meets the majority of the project objectives but does not avoid the significant impacts to the historic bridge. As described in the Draft EIR, rehabilitation of the existing bridge would substantially alter its historic value and appearance resulting in significant unavoidable impact to its historical significance, similar to the proposed project. Construction of a downstream bike/pedestrian bridge would further degrade the riparian habitat and the visual character of the bridge by altering the site setting likely resulting in a new significant unavoidable impact not associated with the project. In addition, the County would have to fund the difference in cost between the project as proposed and Alternative 5. The County would likely require a good deal of time to secure the needed funding, leaving the substandard structure in place for an indeterminate period at great risk to the public safety and possibly necessitating road closure in the interim period which would potentially result in secondary traffic impacts. Thus, Alternative 5 would not reduce impacts when compared to the proposed project and would be economically infeasible.

Finally, Alternative 6 (Rehabilitate Existing Bridge and Add a One-Way Bridge for Traffic and Bicycle/Pedestrians Downstream) would rehabilitate the existing bridge and construct an approximately 16 to 18-foot wide, one lane bridge downstream of the existing bridge to provide a single eastbound traffic lane and a five-foot shoulder for bicycles and pedestrians. This alternative would require the acquisition of additional right-of-way from adjacent parcels. In addition, the rehabilitation of the existing bridge would substantially alter the appearance and characteristics of the historic resource and would result in a substantial adverse impact to the historic integrity of the bridge. The construction of a single-lane bridge would further degrade the riparian habitat along Sonoma Creek as well as the visual character of the bridge by altering the setting. Further, neither the rehabilitation nor the separate one-lane bridge are eligible for federal funding and would require local funding that is currently unavailable, likely leaving the existing deficient bridge in place until funding was made available. Thus, Alternative 6 would not reduce the significant unavoidable impacts to cultural resources and would add new impacts to visual and biotic resources; in addition, this alternative is found to be economically infeasible for the same reasons as Alternative 5.

Commenter offers no evidence to controvert the findings in the alternatives section of the Draft EIR other than her summary conclusion that a rehabilitation/retrofit alternative

would be feasible and environmentally superior to the proposed project. For the reasons set forth above and discussed more fully in the Draft EIR, the commenter is incorrect.

- D-3 Comment: The commenter states that the DEIR is inadequate in its complete failure to include biological resources, hydrology/water quality, noise, air quality, geology/soils, hazards and hazardous materials, and transportation impacts analyses.

Response: Commenter incorrectly asserts that the Draft EIR does not analyze the identified impact areas. The project's potential impacts to biological resources, hydrology/water quality, noise, air quality, geology/soils, hazards and hazardous materials, and transportation were fully assessed and discussed in the Initial Study, which is attached to the Draft EIR as Appendix D and expressly forms a part of the Draft EIR, and summarized in Section 4 of the Draft EIR. The assessments set forth in the Initial Study are based on technical studies, expert opinion, and staff experience with similar projects. As permitted by CEQA, the County used the Initial Study to help define the scope of the analysis in the Draft EIR. (Cal. Code Regs., title 14, §§ 15006(d), 15063(a), 15143.) Effects determined in the Initial Study to be less than significant, either standing alone or with the incorporation of routine mitigation measures imposed on all similar projects, were not brought forward for further discussion in the Draft EIR, nor does CEQA require that an EIR discuss such effects. CEQA Guidelines Section 15143 expressly provides that "[e]ffects dismissed in an Initial Study as clearly insignificant and unlikely to occur need not be discussed in the EIR." The Initial Study's determination of impacts that are clearly insignificant and need not be discussed in the Draft EIR is dispositive, unless the lead agency later received inconsistent information. (Cal. Code Regs., title 14, § 15143.) No such inconsistent information has been received with respect to the Draft EIR, and commenter offers no evidence, substantial or otherwise, outside her sweeping statement.

- D-4 Comment: The commenter states that the fact that an Initial Study discusses mitigation measures does not, as a matter of law, excuse the EIR from analyzing and discussing certain impacts.

Response: As discussed in the response to D-3, above, CEQA permits the use of the Initial Study to narrow the scope of the analysis in the Draft EIR. The commenter offers no authority for her proposition that an EIR must discuss impacts regardless of the fact that the Initial Study has shown that with the implementation of routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects these impacts will be insignificant. More importantly, the commenter's position ignores the plain language of the statute and the implementing guidelines to narrow the scope of the analysis in an EIR. Adding a discussion of the biological impacts to the Draft EIR would not alter the conclusion reached in the Initial Study. The Initial Study's analysis is based on biological assessments, expert opinions, consultation with the California Department of Fish and Game (DFG), and staff's experience with similar projects. The mitigation set forth in the Initial Study is imposed as a matter of course on all similar projects and consists of BMPs and standard construction conditions that can,

with certainty, reduce the potential impacts in question to a less than significant level. Accordingly, commenter is incorrect that the discussion of these impacts must be carried forward to the Draft EIR.

- D-5 Comment: The commenter states that the DEIR acts as a focused EIR and asserts that CEQA limits the use of a focused EIR to certain situations, none of which are applicable here.

Response: Commenter is correct that CEQA permits the use of a focused EIR only under limited circumstances. (See Cal. Pub. Resources Code §§ 21158, 21158.5, 21159.1; Cal. Code Regs., title 14, § 15179.9.) However, the commenter confuses a “focused EIR” with “focusing the scope of the analysis” in an EIR. Despite commenter’s assertions to the contractor, the Draft EIR is not a focused EIR. As discussed more fully above in the response to D-3 and D-4, the County utilized the Initial Study and the CEQA, Appendix G—Environmental Checklist Form to permissibly narrow the scope of the analysis contained in the Draft EIR. (Cal. Code Regs., title 14, §§ 15006(d), 15063(a), 15143.) For a more detailed explanation of the scoping of the EIR, please see the responses to D-3 and D-5, above.

- D-6 Comment: The commenter states that other substantive inadequacies of the DEIR are set forth in, among other places, the comment letter from CPSHB dated November 13, 2012.

Response: The letter referenced by the commenter and the County’s responses thereto have been included in this Response to Comment Document as Comment Letter J.

- D-7 Comment: The commenter contends that the procedure followed by the County is inadequate and expressed concerns over the short period of time between the close of the comment period and the hearing on the Final EIR.

Response: The comment raises no substantive deficiencies with the process followed by the County. The County submitted the proposed project to its Environmental Review Committee (ERC) on August 7, 2012, as required by Sonoma County Code Section 23A-13. The ERC determined the scope of and directed the preparation of the Draft EIR to assesses potentially significant impact associated with the project as identified by the Initial Study. On August 7, 2012, the County prepared and sent a Notice of Preparation (NOP) of the EIR to responsible, trustee, and other interested agencies and persons in accordance with Guidelines Section 15082(a). The NOP included a copy of the Initial Study and provided 30 days for persons to submit comments on the scope of the EIR. The County received four comment letters in response to the NOP which are included in Appendix C to the Draft EIR. The County completed the Draft EIR, together with those certain technical appendices (the “Appendices”), on September 26, 2012. The County circulated the Draft EIR and the Appendices to the public and other interested persons between September 26, 2012, and November 14, 2012, for a 45-day public comment period as required by Guidelines Sections 15087(c) and 15105. The Board of Supervisors held a duly noticed public hearing on October 16, 2012, at which times it

received oral and documentary evidence from the public regarding the Draft EIR. The County completed the Response to Comments Document on November 28, 2012, and released it to the public. There is no specific requirement that a lead agency provide an opportunity for members of the public to review the Final EIR before the project is approved, but the County is providing such an opportunity at the December 4, 2012 Board of Supervisors hearing on the merits of the project and the Final EIR. (Cal. Code Regs., title 14, § 15089(b).) Moreover, there is no rule in CEQA specifying the time frame in which an EIR should be prepared other than the general provisions set forth in CEQA Guidelines Section 15004.

- D-8 Comment: The commenter asserts that the Draft EIR did not complete certain studies requested by the DFG in their September 4, 2012 letter submitted in response to the NOP.

Response: The Initial Study, attached as Appendix D to the Draft EIR, includes a detailed discussion of the biological resources on site and associated impacts of the project, including the species noted by DFG in their comment on the NOP. The mitigation measures incorporated into the Initial Study to reduce any potential impacts to biological resources are based on biological assessments prepared in connection with the Draft EIR and prior reviews of the project, expert opinions, consultation with DFG, and staff's experience with similar projects. These measures adequately consider and account for impacts to the species noted by DFG in their NOP letter and mitigate any potential project impacts to biological resources to a level of insignificance. It is noteworthy that DFG received a copy of the Draft EIR but did not submit further comments on the Draft EIR outside of their letter in response to the NOP.

- D-9 Comment: The commenter additionally refers to a letter dated August 21, 2012 submitted by Caltrans in response to the County's NOP. The commenter states that a Traffic Impact Study (TIS) needs to be prepared as part of the CEQA environmental review process and to date a TIS has not been submitted.

Response: The commenter correctly notes that Caltrans requested the preparation of a Traffic Impact Study (TIS) in their comment letter on the NOP. However, the County determined there was no need to prepare a TIS for a project that replaces an existing two-lane bridge with a new two-lane bridge, on a rural minor collector, and Caltrans did not renew their request for a TIS in their comment letter on the adequacy of the Draft EIR. The project is not traffic generating, and vehicles will continue to use the route as they do today. In addition, Watmaugh Road is not a primary truck route, and would not be expected to change as a result of replacing the bridge. Based on all available information, a TIS is not required and Caltrans, by not renewing their request, appears to concur.

- D-10 Commenter's letter includes four other attachments in addition to the letters from DFG and Caltrans addressed above in the responses to D-8 and D-9, respectively. These attachments consist of three letters prepared by this commenter and previously submitted to and considered by the County and a copy of Appendix G – The Environmental

Checklist Form from the CEQA Guidelines which County utilized in preparing the Initial Study. These attachments do not raise new substantive comments. As relevant, these prior submittals of information have previously been considered by County staff in the context they were made and either responded to or considered in the preparation of the Draft EIR, as appropriate.

Letter E. Gail Johnson, Citizens for the Preservation of Sonoma Historic Bridges (CPSHB)

- E-1 Comment: The commenter writes that in the course of performing research for the Watmaugh Road Bridge, they found documents that suggest that Sonoma County plans to remove additional historic bridges (specifically the Chalk Hill Road Bridge), contrary to statements made in the DIER specifically in Section 5C-6.

Response: While some of the documents that the commenter includes do describe local bridges that have historical significance (i.e., at minimum are locally zoned as HD) and list these as replacement projects, these documents appear to be taken from a transportation planning website and should be viewed from the broad context of transportation planning. The bridges that would appear as replacements are new bridges that would bypass the older existing bridges and leave the existing structures in place. As stated in the DEIR, Table 5C-2, a few of the HD bridges will have projects that will construct new parallel bridges located nearby. With regards to the Chalk Hill Road Bridge, it is clearly stated on the DTPW web site, and in the Draft EIR (Table 5C-2) that the proposed project would leave the existing bridge in place and construct a new parallel bridge. Also as stated in the DEIR, there are no current proposals or plans to remove other bridges (other than the Watmaugh Road Bridge) that are zoned HD.

Letter F. Greg Rose

F-1 Comment: The commenter expresses their desire to see the Watmaugh Road Bridge replaced as soon as possible due to the existing poor alignment and narrow lanes.

Response: The comment is acknowledged and although it is not a comment on the adequacy of the Draft EIR, it will be considered by the decision makers.

Letter G. Barbara Wimmer, Sonoma League for Historic Preservation

- G-1 Comment: The commenter urges the Board of Supervisors and staff to uphold the County's own regulation to "Protect structures and sites that provide significant examples of architectural styles of the past, or which are unique and irreplaceable assets to the County and its communities" (Sonoma County Landmarks Commission By-laws) to protect historic resources.

Response: This is not a comment on the adequacy of the Draft EIR, but will be considered by the decision makers. The purpose of the Draft EIR is to assess the physical effects on the environment. The comment focuses on a policy question for the Board of Supervisors. The Draft EIR did discuss consistency with adopted policy. See response to comment L-1.

- G-2 Comment: The commenter states that the Board of the League is opposed to the alternative downstream parallel bridge, which would destroy the scenic, rural character of the surrounding environment, alter the rural ambiance of Watmaugh Road, destroy private property irreparably, and leave the unpurposed, unmaintained historic bridge to demolish by decay and neglect, with a bridge and approaches going to nowhere. This alternative is simply unacceptable.

Response: Although not a comment on the adequacy of the Draft EIR, it will be considered by the decision makers. Note that the Draft EIR described the impacts of Alternative 2, Construction of a Downstream Bridge Leaving Existing Bridge In Place, in section 7.6. See response to comment G-1 and L-1.

- G-3 Comment: The commenter states that while County staff has applied for public funds to build a replacement bridge, funding is available for preservation, including retrofitting and rehabilitation, through the Highway Bridge Program (HBP) and the new federal "Moving Ahead for Progress in the 21st Century Act" (MAP-21). The League requests that the County pursue funding for the preservation of the Watmaugh Road Bridge and seek from Caltrans the necessary exceptions as allowed by Caltrans.

Response: Although not a comment on the adequacy of the Draft EIR, it will be considered by the decision makers. Note that the Draft EIR considered numerous alternatives to the proposed project. As described in the Draft EIR, retrofitting and rehabilitating the existing bridge does not meet the objectives of the project. See section 7, Alternatives, in the Draft EIR for details on the alternatives considered. In addition, funding is not currently available for the long-term maintenance of the Watmaugh Bridge because the Watmaugh Bridge is not eligible for listing on the National Register.

- G-4 Comment: The commenter states Napa County citizens and governmental agencies and staff have worked together and have gone to considerable efforts to preserve their

County's historic bridges. The citizens of Sonoma Valley and the City of Sonoma are proud of their efforts to preserve their historic structures and heritage. We expect no less of Sonoma County's representatives and staff.

Response: This is not a comment on the adequacy of the Draft EIR, but will be considered by the decision makers.

- G-5 Comment: The commenter asserts that the Draft EIR is deficient in that it does not point out alternative routes more appropriate for heavy truck traffic than Watmaugh Road, thereby allowing the preservation of the Watmaugh Road Bridge meeting seismic retrofitted standards for lower weights.

Response: Diverting truck traffic onto other routes does not correct the bridge deficiencies and safety concerns for all traffic crossing the bridge. Although the new bridge will not be load limited, any increase in large trucks is anticipated to be very small. The project is not traffic generating, and vehicles will continue to use the route as they do today. In addition, Watmaugh Road is not a primary truck route, is a rural minor collector, and would not be expected to change as a result of replacing the bridge.

- G-6 Comment: The commenter asserts that Draft EIR lacks design plans and detailed cost analysis for the proposed preservation of the Watmaugh Road Bridge in order to make an informed decision.

Response: The Draft EIR included the review of 30% preliminary design, as shown in Figure 2 page 3-4, which provides adequate detail to conduct an impact analysis. The Draft EIR includes adequate design details to conduct an impact analysis. Preserving or not preserving the existing bridge was not based on cost, but on the ability to meet the majority of the project objectives. Commenter incorrectly asserts that CEQA requires that the DEIR provide a cost analysis of both the proposed project and the various alternatives. There is no CEQA requirement that DEIR should provide a cost analysis of the proposed replacement project or any alternatives. The courts have uniformly found that an EIR is an informational document to assess environmental impacts and not required to include ultimate determinations of economic feasibility (San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656, 689.) More importantly, CEQA Guidelines section 15131 expressly provides that economic data is not required to be included in an EIR, and CEQA states that a finding of infeasibility shall be based on "substantial evidence in the record" (Cal. Pub. Res. Code § 21081.5). The record of the proceedings consists of many different types of materials, not just the EIR. (Cal. Pub. Res. Code § 21167.6(e).) Thus, the DEIR is not required to provide a cost analysis for the proposed replacement project or any alternatives.

- G-7 Comment: The commenter asserts that the Draft EIR lacks design plans and detailed engineering studies and cost analysis for the seismic retrofit and rehab of the historic bridge.

Response: The Draft EIR included the review of 30% preliminary design for the retrofit alternative. See response to G-6 for a discussion of why a cost analysis is not provided.

- G-8 Comment: The commenter asserts that the Draft EIR schematic site plans for the replacement bridge and downstream bridge are inaccurate, incomplete, and misleading.

Response: The Draft EIR included the review of 30% preliminary design for the downstream bridge alternative. The commenter provides no explanation of the assertion that the site plans are inaccurate, incomplete, and misleading..

- G-9 Comment: The commenter asks that the County spend the time it takes to increase public confidence that it cares about historic resources and preservation in the Sonoma Valley, and take whatever action is necessary to review the matter independently and diligently.

Response: This is not a comment on the adequacy of the Draft EIR, but will be considered by the decision makers.

Letter H. David Salladay, Caltrans District 4 Office of Permits

H-1 Comment: The commenter refers to the Traffic Technical Memorandum that was prepared for the proposed project and on page 3-1, second paragraph states that Watmaugh Road traffic volumes were 531 vehicles in the AM peak and 329 for the PM peak hours (total, both directions). Caltrans essentially states that because SR 121 operates at Level of Service (LOS) F during the peak traffic hours, the diverted trips from the project would exacerbate congestion at the intersections of SR-12/121 and SR 121/116. The detour capacity of the project would be restrained by the all-way stop controlled Arnold Drive /SR -116/121 and congestion there may be substantial as well.

Response: The Traffic Technical Memo prepared for the proposed project, which was utilized to complete the traffic analysis presented in the Initial Study, fully analyzed the potential impacts the diverted trips from the project would have on nearby roadways. The Traffic Technical Memo shows an AM peak hour traffic volume on Watmaugh Road of 531 vehicles and a PM peak hour traffic volume of 329 vehicles (total, both directions) and concluded that impacts from the diverted project traffic would be less than significant. After reviewing the traffic count data, it was noted that the AM eastbound volume (391) seemed high compared to the westbound direction (140). In investigating this data inconsistency, it was discovered that an accident occurred on May 4, 2011, at approximately 7:35 am, as documented by the Sonoma Valley Fire Department. This accident resulted in the closure of Arnold Drive just north of Watmaugh Road. The closure resulted in approximately 206 cars being diverted eastbound onto Watmaugh Road during the AM peak hour that morning, based on traffic counts collected the following day. As a result, the Traffic Technical Memo overstates the AM peak volumes on Watmaugh Road. While that is the case, mid-week data from the following day was also collected. This data shows an eastbound AM volume of 185 vehicles, or just fewer than three vehicles per minute (this is 206 vehicles less in the AM than analyzed in the Initial Study). The data shows an aggregate AM peak of 306 vehicles, and a PM peak hour traffic volume of 329 vehicles (total, both directions). These additional five vehicle trips per minute during the PM peak hour (the highest volume hour) could take a number of additional routes during the period that Watmaugh Road is closed. If all of these additional vehicles traveled through either SR 12/121 or SR121/116, it would not substantially change the LOS nor add substantial queue lengths to the subject intersection. Thus, the temporary diversion of project traffic during construction would not result in a significant adverse impact on either SR 12/121 or SR 121/116 as suggested by the commenter.

The traffic data, as corrected above, shows a substantial reduction in the peak hour traffic volumes on Watmaugh Road that would need to be diverted to other routes during project construction, compared to what was analyzed in the Initial Study. Thus, the Initial Study analyzed a worst case scenario. As described in the Initial Study, the diversion of 531 trips during the AM peak hour onto alternate routes could result in potential for traffic

delays at nearby intersections, and appropriate mitigation was included to detour traffic to Leveroni Road until construction of the replacement bridge is completed. In addition, if lengthy delays are anticipated, the proposed mitigation requires that signs be placed at all entrances to the project site and on major intersecting roads, including Leveroni Road to notify motorists that traffic will be subject to delay, allowing them time to alter their routes, thereby further reducing any possible congestion. The Initial Study found that with the incorporation of the identified mitigation, the temporary construction impacts to traffic would be less than significant. While the mitigation includes the same types of elements that would be found in a Transportation Management Plan (TMP), the County will nonetheless include a TMP as an additional mitigation measure to further reduce potential impacts to nearby roadways during project construction.

Traffic Mitigation Measure No. H-1: Prior To project construction, a Traffic Management Plan (TMP) will be prepared to Caltrans Standard Specifications. “Manual on Uniform Traffic Devices.” In addition, “Construction Area Traffic Control Devices” shall be followed during construction. Project plans and specifications shall also require that adequate signing and other precautions for public safety be provided during project.

- H-2 Comment: The commenter requests intersection LOS analysis and queue length analysis for the nearby state route intersections.

Response: Contrary to the commenter’s assertion, including the additional intersection LOS analysis and queue lengths neither provides a more comprehensive understanding of traffic conditions in the project study area nor is it warranted. As discussed in detail in the response to comment H-1, above, even with the arbitrarily inflated trips analyzed in the Initial Study, the project’s temporary construction impacts to traffic were mitigated to less than significant levels. Providing the additional LOS and queuing data offers no further insight on traffic conditions in the project study area. See the response to comment H-1 above.

- H-3 Comment: The commenter states that if it is determined that traffic restrictions and detours are needed that affect state highways, a Traffic Management Plan or Traffic Impact Study may be required.

Response: See the response to comment H-1.

- H-4 Comment: The commenter advises the County that an Encroachment Permit may be needed for work within the State Right of Way.

Response: This comment does not specifically address the adequacy of the Draft EIR. Nevertheless, the County is aware of the need for an encroachment permit for work in State Right of Way and, if the County proceeds with the project, the County will submit an application for an encroachment permit as necessary.

Letter I. Johanna Patri & Gail Johnson, Citizens for the Preservation of Sonoma Historic Bridges

- I-1 Comment: The commenter describes that CEQA does not allow for speculation and contradictory information. Specifically, the commenter states that the discussion in 5C.4 is speculative and contradicts other available public information.

Response: The commenter provides no specifics to demonstrate how the discussion in Section 5C.4 of the DEIR is speculative or contradicts other available public evidence; nor does commenter proffer this “other available public evidence.” To the contrary, the commenter relies solely on its sweeping conclusory statement to content the discussion of cumulative impacts in the DEIR is flawed. The information in 5C.4 of the DEIR is up to date and consistent with the project plans and goals of Sonoma County DTPW and is neither speculative nor is it contradictory. The Draft EIR includes detailed impact analyses in many issue areas based on the proposed project design, and staff experience on similar types of projects.

- I-2 Comment: The commenter suggests that the discussion and Table 5C-2 lacks substantial evidence and verifiable data and further suggests that the DEIR presents a “piecemeal,” speculative, and inaccurate picture of probable future projects relating to the demolition of other historic bridges.

Response: Commenter’s claim that the discussion in Section 5C-4 and the information provide in Table 5C-2 lack substantial evidence and verifiable data is without merit. The CEQA Guidelines define “substantial evidence” as enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. (14 Cal. Code Regs. § 15384.). The information provided in Table 5C-2 reflects a number of projects already completed, and other projects currently underway in the design and environmental phase, for which funding has been provided. The information in 5C.4 of the DEIR is up to date and consistent with the project plans and goals of Sonoma County DTPW and is in no way speculative, and, in fact, is readily verifiable.

Commenter additionally suggests that the County has improperly attempted to avoid fully analyzing the potential environmental impacts associated with the proposed project by presenting a “‘piecemeal’, speculative, and inaccurate picture of probable future projects relating to demolition.” The comment shows a fundamental lack of understanding of the CEQA review process.

Contrary to the comment’s assertions, the information set forth in the discussion of cumulative impacts in Section 5C.4 of the DEIR is both accurate and concrete based on currently available information. The fact that the commenter disagrees with the County’s proposed plans for various other historic bridges and believes such approaches will lead to “demolition, either by the wrecking ball or neglect,” does not render these future

projects any less reasonably foreseeable. Moreover, commenter provides no guidance as to how the discussion in Section 5C.4 attempts to piecemeal the analysis of potential cumulative impacts to the HD Zoning District or other historic bridges; nor does any information set forth in Section constitute segmentation or piecemealing under CEQA.

Segmentation and piecemealing refer to the avoidance of environmental review by chopping a larger project into smaller components or phases and studying them separately, in a way that understates the actual environmental impacts of the whole project. Instead, CEQA requires that environmental review address the whole of the action, including consideration of *other projects* that may have related cumulative impacts, although in less detail than a project-level analysis. (CEQA Guidelines, §§15130, 15378). This was the approach taken in the Draft EIR.

CEQA Guidelines Section 15165 states: “Where [a] project is one of several similar projects of a public agency, but is not deemed a part of a larger undertaking or a larger project, the agency may prepare one EIR for all projects, or one for each project, but shall in either case comment upon the cumulative effect.” Consistent with this requirement, the DEIR assessed the potential of the project to impact the HD zoning of other bridges constituting the historic bridge thematic district established by Board of Supervisors Resolution 98-0046. As discussed in detail in the DEIR, each bridge in the HD district qualifies both individually and as part of a thematic district for local historic designation. Because the bridges each qualify individually, the removal and rezoning of the Watmaugh Bridge under the proposed project does not make the remaining bridges ineligible for HD zoning or require their rezoning.

Nor would removal of the Watmaugh Bridge under the proposed project make it more likely that any of the remaining bridges would be removed or replaced. Despite commenter’s assertions to the contrary, there are no current proposals or plans to remove other bridges zoned HD. While the County cannot foresee what future Boards of Supervisors may do, CEQA does not require that the DEIR “speculate” and assume future Boards will alter current policy and remove one of the remaining historic bridges. For these reasons, the DEIR accurately and thoroughly discusses the potential of the project to impact the HD zoning of other bridges constituting the historic bridge thematic district. Commenter has offered no substantial evidence contradicting the DEIR’s determination that the replacement of the Watmaugh Bridge would have a less than significant cumulative impact on the historic bridge thematic district.

- I-3 Comment: The commenter states that the DEIR fails to address all of the effects of the proposals, particularly for Big Sulphur Creek at Geysers Road Bridge, Chalk Hill Bridge, and the Lambert Road Bridge and Watmaugh Road Bridge would have when taken together.

Response: The other bridges that the commenter lists (e.g. Big Sulphur Creek Bridge, Chalk Hill Bridge, and the Lambert Road Bridge) are in the early stages of project development and as a result, will be addressed as separate projects under CEQA. What is

clear at this point at these sites is that in each case the existing bridge will remain in place and a new parallel bridge will be constructed nearby to carry traffic, thereby retaining the historic structure. This result was adequately discussed and assessed in the cumulative analysis set forth in Section 5C.4 of the DEIR. For further discussion of the cumulative impacts of the project in combination with the other planned projects in the historic bridge thematic district, please see the response to Comment I-2 above.

- I-4 Comment: The commenter states that Table 5C-2 Section 5C.4 of the DEIR speculates on the construction of parallel bridges with the other bridges remaining in place.

Response: The information in 5C.4 of the DEIR is up to date and consistent with the project plans and goals of Sonoma County DTPW and is not speculative. These project plans represent the current policy and direction of the Sonoma County DTPW. The County has already received funding for the design phase for the Lambert Road Bridge and is actively pursuing applications for funding for the several of the other project plans listed on Table 5C-2.

- I-5 Comment: The Commenter states that these historic bridges (will be demolished one at a time by direct action (the wrecking ball) or by neglect and would thus have a significant cumulative effect on the historic thematic bridge district.

Response: Contrary to commenter's assertions, there are no plans to remove any other HD designated bridges, including the bridges that the commenter discusses (e.g. Big Sulphur Creek Bridge, Chalk Hill Bridge, or the Lambert Road Bridge). The DEIR's discussion of the past, present, or reasonably foreseeable projects that could contribute to a cumulative impact remains accurate. In addition, each of the aforementioned bridges are eligible for the National Register and, therefore, federal funds for their long-term maintenance are available, contrary to commenter's assertion that the County will allow these bridges to be demolished by neglect. Finally, it should be noted that this funding is not currently available for the long-term maintenance of the Watmaugh Bridge because the Watmaugh Bridge is not eligible for listing on the National Register.

- I-6 Comment: The commenter states that the DEIR discussion focuses on the impact to the HD zoning rather than the impact to the whole of the historic thematic bridge district. The commenter proceeds to describe that the DEIR fails to address the piece by piece removal of bridges from the thematic district and fails to address the facts in the record.

Response: As discussed in the response to the prior comment, there are no plans to remove any other bridges from the historic bridge thematic district. The discussion of cumulative impacts focuses on the potential of the project to impact the HD zoning of other bridges constituting the historic bridge thematic district established by Board of Supervisors Resolution 98-0046. The findings in Resolution 98-0046 state that the bridges qualify individually and as a thematic district for local historic designation. Because the bridges each qualify individually, the removal and rezoning of the

Watmaugh Bridge under the proposed project does not make the remaining bridges ineligible for HD zoning or require their rezoning. The commenter's insistence that additional bridges will be demolished is neither supported by evidence, substantial or otherwise, nor warranted. As discussed more fully in the responses to Comments I-2 and I-5, the replacement of the Watmaugh Bridge would have a less than significant cumulative impact on the historic bridge thematic district.

- I-7 Comment: The Commenter refers to Table 5C-2 which states that none of the remaining bridges would be removed including Big Sulphur Creek Bridge, Chalk Hill Bridge, or the Lambert Road Bridge, but will instead have new parallel bridges constructed nearby. The commenter goes on to state that County staff said that there would be no plans for these projects.

Response: The information in Table 5C-2 represents the current project plans and policy direction of the Sonoma County DTPW. These plans call for the construction of new parallel bridges near the Big Sulphur Creek Bridge, Chalk Hill Bridge, and the Lambert Road Bridge sites. As with any project, the County must secure funding to proceed with the development of engineering plans and, ultimately, the construction of these improvements. As noted in the response to Comment I-4, the County has already received funding for the design phase for the Lambert Road Bridge and is actively pursuing applications for funding for the several of the other project plans listed on Table 5C-2.

- I-8 Comment: Big Sulphur Creek Bridge, Chalk Hill Bridge, and the Lambert Road Bridge have been found to be eligible for the Federal Register so why is the county not seeking federal funding for a rehab or retrofit project?

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision-makers at the County of Sonoma Board of Supervisors.

- I-9 Comment: The commenter states that O'Donnell Lane over Calabazas Creek is eligible for the National Register and has funding available for maintenance and rehabilitation. While this is the case, Table 6a of The Bridges of Sonoma County 2009, Strategic Planning lists the bridge as local significance only (as with Watmaugh). Since this is the case, the commenter concludes that Watmaugh Bridge can receive federal funding as well.

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision-makers at the County of Sonoma Board of Supervisors. Notwithstanding the foregoing, the commenter is incorrect that the Watmaugh Bridge is can receive federal funding for maintenance and rehabilitation. As noted in the response to Comment I-5, that funding is only available to bridges that are eligible for listing on the National Register. The Watmaugh Bridge, as discussed at length in the DEIR and in the responses to several comments, is not eligible

for listing on the National Register and, therefore, this funding is not available for the long-term maintenance of the Watmaugh Bridge.

- I-10 Comment: The Commenter states that contradictory to Table 5C-2 Big Sulphur Creek Bridge, Chalk Hill Bridge, and the Lambert Road Bridge and scheduled to be demolished as listed on Sonoma County Project Listings, Transit Projects, dated September 28, 2012.

Response: These documents appear to be taken from a transportation planning website and should be viewed from the broad context of transportation planning. See response to I-3 above. The bridges that would appear as replacements are new bridges that would bypass the older existing bridges and leave the existing structures in place. As stated in the DEIR, a few of the HD bridges will have projects that will construct new parallels bridges located nearby (e.g., Big Sulphur Creek Bridge and the Chalk Hill Bridge). Also as stated in the DEIR, there are no current proposals or plans to remove other bridges (other than the Watmaugh Road Bridge) that are zoned HD. See responses to comments E-1 and I-3.

- I-11 Comment: The commenter suggests that Section 5C.4, the Cumulative Impacts discussion is erroneous and does not meet the standard of CEQA when addressing the historic bridge thematic district.

Response: See the response to I-6 above.

- I-12 Comment: The commenter states that the CPSHB applauds the Sonoma County BOS and DTPW staff for preserving O'Donnell Lane Bridge and notes that it retains a load limits as does the Watmaugh Road Bridge.

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision-makers at the County of Sonoma Board of Supervisors.

- I-13 Comment: The commenter states that the DEIR cannot state with certainty that the historic bridges will be preserved and therefore conclude there will be no cumulative impacts.

Response: See response to I-6 and I-10 above.

Letter J. Citizens for the Preservation of Sonoma Historic Bridges

Introduction

The commenter (Citizens for the Preservation of Sonoma Historic Bridges) submitted a comment letter that contained a substantial number of attachments and exhibits, including both new and re-submitted information. This Introduction provides context for how the County has considered all relevant issues raised by the commenter.

The letter dated November 14, 2012, was titled *Comments Draft Environmental Impact Report (DEIR) Watmaugh Road Bridge Over Sonoma Creek Replacement Project September, 2012*. Comment Letter J contained eight attachments. Attachments 1 through 8 (referred to as Attachments J.1 through J.8, respectively, in this Response to Comments Document), include: a letter from the California Department of Transportation (“Caltrans”) dated August 20, 2012, notifying all cities and counties of the availability of federal funds to rehabilitate or replace deficient bridges in California; a memorandum from Levi Gurule, Senior Engineer with the Sonoma County Department of Transportation and Public Works (“TPW”), dated prior to the Notice of Preparation (“NOP”) for the Draft EIR providing technical information on the funding sources for three alternative projects for the Watmaugh Road Bridge Replacement Project; a photo simulation of the proposed bridge replacement project of unknown origin; an excerpt from a PowerPoint presentation explaining the process for CEQA and project review; a letter from the California Department of Fish and Game (“DFG”) dated September 4, 2012, submitted in response to the NOP for the Draft EIR; a letter from Caltrans dated August 21, 2012, submitted in response to the NOP for the Draft EIR; City of Healdsburg Resolution No. 25-2011, adopted February 22, 2011, in connection with the rehabilitation of the Healdsburg Avenue Bridge; and several case studies from other states discussing rehabilitation versus replacement for various historic bridges in those jurisdictions.

Many of the attachments are re-submitted information that has been previously submitted to the County, either by this commenter or other agencies, or produced by the County itself. To the extent new substantive comments are raised in Comment Letter E and its accompanying attachments, those issues are responded to in this Response to Comments Document. As relevant, the prior submittals of information have previously been considered by County staff in the context they were made and either responded to or considered in the preparation of the Draft EIR, as appropriate. To the extent the submitted material bears no direct relation to the project being considered in the Draft EIR, and commenter has provided no explanation to show the application of the submitted material to the analysis set forth in the Draft EIR, this Response to Comments Document so notes.

In summary, all of the comments submitted by the commenter have been carefully considered and evaluated with respect to whether they present significant environmental points relevant to the proposed project and the alternatives to the proposed project considered in the Draft EIR. The

table below provides a summary of the comment letter and its various attachments, including a reference for how each letter component is referred to the Response to Comments Document, a description of each letter component (author, description, and date), and the status of each attachment (i.e. whether the submittal is new, a re-submittal that pre-dates the NOP and Draft EIR, or was previously submitted in response to the NOP).

SUMMARY OF COMMENT LETTER J

Letter Reference Use In Response to Comments Document	Submittal	Author	Description	Date	Status of Each Submittal
E	Letter	Citizens for the Preservation of Sonoma Historic Bridges	Comments on Draft EIR	11/14/12	New
E.1	Attachment 1	Caltrans – Denix D. Anbiah	Notice of Funding Availability	8/20/12	Re-submittal
E.2	Attachment 2	Levi Gurule – Sonoma County Dept. of TPW	Technical information on funding sources	4/23/12	Predates NOP
E.3	Attachment 3	Not specified	Photosimulation of Proposed Project	N.A.	Duplicates material in DEIR
E.4	Attachment 4	Not specified	Excerpt from Power Point on Project and CEQA Process	N.A.	Predates NOP
E.5	Attachment 5	California Dept. of Fish & Game	Comments on Watmaugh Bridge Replacement Project Notice of Preparation	9/4/12	Response to NOP
E.6	Attachment 6	Caltrans	Comments on Watmaugh Bridge Replacement Project Notice of Preparation	8/21/12	Response to NOP
E.7	Attachment 7	City of Healdsburg	Resolution No. 25-2011	2/22/11	Unrelated to Project
E.8	Attachment 8	Various	Case Studies	Varies	Unrelated to Project

Responses to Letter J

- J-1 Comment: The commenter states that the Aesthetics Section of the DEIR is deficient in its analysis and conclusions as to the potentially significant visual impacts of the proposed project due to its vague project description and lack of plans.

Response: See comments J2-J5 below.

- J-2 Comment: The commenter states that the project description refers to a concrete box girder of a concrete slab bridge design.

Response: The methods used to assess aesthetic impacts of the proposed project were based on the Visual Assessment Guidelines issued by the Sonoma County Permit and Resource Management Department (PRMD). Project impacts have been analyzed by considering public viewing points which is from the view of the traveling public on the road surface. From this vantage point, a concrete box girder or a concrete slab bridge would appear nearly identical and would not influence the results of the visual assessment.

- J-3 Comment: The commenter points out the fact that the DEIR states that only minor amounts of right-of-way and construction easements would be required to construct the proposed project.

Response: This comment does not address environmental impacts or the adequacy of the DEIR. In Section 5C of the DEIR, describes the existing nearby parcel sizes and right of way needs (Table 5C-1). The comment is acknowledged and will be forwarded to and considered by the decision makers.

- J-4 Comment: The commenter states that the DEIR lacks design plans for the new bridge to be reviewed and analyzed including the proposed design and attachment of the existing trusses to a new concrete bridge and the design of the understructure.

Response: The Draft EIR includes the review of 30% preliminary design in Figure 2 page 3-4 and has adequate detail to conduct an impact analysis.

- J-5 Comment: The commenter states that the DEIR lacks plans, specifications and disposal means and sites for the demolition of the historic bridge.

Response: Comment noted. The DEIR includes adequate design details to conduct an impact analysis please see J-4 above. The DEIR included discussion and mitigation for construction related debris and disposal means under Item 42 on Page 4-6, Item 5 on Pages 4-11 and 4-12, and in Item 11 on Page 4-15.

- J-6 Comment: The commenter states that the DEIR lacks a tree removal plan that identifies and quantifies the trees to be removed and lacks a tree replacement plan.

Response: The DEIR includes a general description of the trees to be removed and mitigation that will reduce the impacts to trees to a level of insignificance in the Biological Resources Section of the Initial Study and specifically Items 4-7 on Page 4-11 of the DEIR.

- J-7 Comment: The commenter asserts that the photo simulation is inadequate to reach a conclusion on the visual and aesthetic impacts (attachment 3).

Response: This comment does not specify how the simulation presented in the Draft EIR is inadequate. Nevertheless, the visual impact analysis done in the Draft EIR and is based upon the County's Visual Assessment Guidelines and therefore meets industry standards. The comment will be passed on to the decision makers.

- J-8 Comment: The commenter points out that CEQA does not permit mitigation based on future studies after EIR certification or project approval.

Response: It is unclear whether commenter intended this as a general restatement of CEQA's requirements or as a comment on the deficiency of a particular mitigation measure proposed in the DEIR. Notwithstanding this confusion, commenter should note that none of the mitigation measures proposed by the Draft EIR are based on future studies, and all of these proposed measures fully comply with CEQA's dictates. The comment is noted and will be forwarded to and considered by the decision-makers on the County of Sonoma Board of Supervisors.

- J-9 Comment: The commenter essentially states that Aesthetics Sections of the Initial Study and the DEIR are nearly identical and yet the IS found that the impacts to the scenic vista may remain significant after mitigation whereas the DEIR found that mitigation would reduce the impact to a level of insignificance. The DEIR does not contain adequate analysis or specifics to come to a different conclusion than that in the IS.

Response: The Aesthetic Section (Section 5A) of the DEIR, when compared to the Aesthetics Section of the Initial Study, includes a much more detailed description and analysis of the visual setting. It includes a description of the existing landforms, land uses, vegetation types as well as viewing distances and durations. In addition, but not limited to those extra details the analysis including improved photo simulations of the proposed project. While with this more detailed analysis of the proposed project the impact analysis found similar impacts as those previously described in the Initial Study, the DEIR found with the incorporation of mitigation the visual impact from the proposed project would be at a level that is less than significant.

- J-10 Comment: The commenter asserts that the project description is vague and refers to a concrete box girder or concrete slab bridge design; the two options are distinct and are not analyzed adequately.

Response: As stated in the DEIR, (Section 5A) impacts were analyzed by considering public viewing points that included views of the bridge along Watmaugh Road and were characterized as linear views up to the bridge. These views will not include longitudinal views of the bridge deck and therefore the bridge profile will not be seen. As a consequence the difference between a box girder or slab bridge design is not of consequence.

- J-11 Comment: There are no design plans to base analysis or judgment.

Response: The comment is unclear as to the lack of design plans. The commenter is referred to J-4 above.

- J-12 Comment: The commenter states that the proposed project would require the removal of existing mature trees and would leave bare areas that would impact views. The commenter further asserts that the DEIR does not identify these trees in any detail as far as species, sizes or numbers and proposes mitigation for this impact that is vague and not quantified and cannot be analyzed for adequacy there is no tree removal or replacement plan in the DEIR.

Response: The DEIR include a general description of the trees to be removed and mitigation that will reduce the impacts to trees to a level of insignificance in the Biological Resources Section of the Initial Study and specifically Items 4-7 on Page 4-11 of the DEIR.

- J-13 Comment: The commenter states that the DEIR contains no design plans for review and analysis.

Response: The DEIR includes the review of 30% preliminary design in Figure 2 page 3-4 and has adequate detail to conduct an impact analysis.

- J-14 Comment: The commenter states that the mitigation measures are vague cannot be measured or verified, and cannot be analyzed for their integrity.

Response: This comment is not specific as to what information in the in the Draft EIR mitigation is vague and inadequate. Notwithstanding this lack of specificity, commenter's claim that the mitigation measures proposed are vague and incapable of being measured or verified is not well taken. The mitigations measures provided in the DEIR were crafted to be specific as possible and will reduce impacts and are adequate. The comment is acknowledged and will be forwarded to and considered by the decision-makers at the County of Sonoma Board of Supervisors.

- J-15 Comment: The commenter states that the public was told that 30% design plans were needed to provide enough detail to prepare an EIR.

Response: While we are not sure which public meeting this information was given, the Draft EIR includes the review of 30% preliminary design in Figure 2 page 3-4 and has adequate detail to conduct an impact analysis.

- J-16 Comment: The commenter points out that the DEIR states that only minor amounts of additional rights-of-way would be required. The commenter then questions, what is “minor”? How much land will be required? The commenter then questions, where are the locations and acquisitions of the additional required rights-of-way? The DEIR needs to identify the affected property owners. The site plan is vague. The Watmaugh Road rights-of-way need to be mapped to understand the scope of the project. Per CEQA requirements, precise locations and boundaries of the proposed project need to be provided within the DEIR. The DEIR needs to include a site plan identifying the additional required rights-of-way to determine potential impacts to the environment with appropriate and adequate mitigation measures.

Response: This comment does not address environmental impacts or the adequacy of the DEIR. In Section 5C of the DEIR, describes the existing nearby parcel sizes and right of way needs (Table 5C-1). The comment is acknowledged and will be forwarded to and considered by the decision makers.

- J-17 Comment: The commenter points out that the DEIR states that temporary construction easements may be necessary. The commenter then asks where these construction easements will be sited. The DEIR needs to identify the locations of these easements, the affected property owners, and determine potential impacts to the environment as a result of temporary construction easements and appropriate mitigation measures.

Response: This comment does not address environmental impacts or the adequacy of the DEIR. In Section 5C of the DEIR, describes the existing nearby parcel sizes and right of way needs (Table 5C-1). The comment is acknowledged and will be forwarded to and considered by the decision makers.

- J-18 Comment: The commenter asserts that the DEIR is deficient in its biological analysis and conclusions as to the potentially significant biological impacts of the proposed project including, but not necessarily limited to the effects and potentially significant impacts on sensitive or special status species, their habitats, and removal of vegetation. The commenter further asserts that CEQA does not permit mitigation measures formulated based on future studies or studies after certification of the EIR or after project approval.

Response: Study of California freshwater shrimp was prepared in January, 2000 and a Biological Assessment was prepared in March of 2000. These studies along with more recent field work at the site were used during the preparation of the Initial Study and DEIR for the proposed project.

- J-19 Comment: The commenter describes a letter that was prepared by DFG staff in September of 2012 that requests a Biological Assessment be prepared for the CEQA Review. In addition a hydraulic analysis should be conducted to determine the locations of the bridge abutments and piers. The conclusion in the required Hydraulic Analysis would have a bearing on the location and design of the new bridge. The required Hydraulic Analysis would determine design elements that would minimize scour and may negatively affect existing freshwater shrimp habitat.

Response: As discussed above, a study of California freshwater shrimp was prepared in January, 2000 and a Biological Assessment was prepared in March of 2000. These studies along with more recent field work at the site were used during the preparation of the Initial Study and DEIR for the proposed project.

In addition, a location hydraulic study was prepared for the proposed project in 2000 per Caltrans and the Federal Highways Administration's NEPA requirements and a meeting was held in the spring of 2010 at the site to discuss the placement of the piers and abutments. Attendees of the meeting included County staff, Caltrans staff, Army Corps of Engineers and, California Department of Fish and Game staff.

- J-20 Comment: The Commenter asserts that without the Biological Assessment required by DFG, the significance of the environmental impacts cannot be known and, therefore, specific mitigation measures cannot be put forth. In addition, without the Hydraulic Analysis, the design and location of the bridge cannot be determined and therefore, specific locations and/or mitigation measures cannot be put forth. The Hydraulic Analysis should be of adequate detail to verify the 50-year and 100-year flood flows.

Response: Comment noted, please see the responses to J-8 and J-19 above.

- J-21 Comment: The Commenter asserts that the DEIR is deficient in its analysis of the proposed project and conclusions with respect to how the proposed replacement project would be consistent with the established historic and rural character of the surrounding environment and Watmaugh Road as a rural, two-lane connector. The commenter asserts that that the DEIR lacks design plans to reach a conclusion or set forth appropriate mitigation measures. Alternatively, the commenter asserts that the DEIR must address how the retrofit/rehab of the historic bridge alternative project, based on sufficient design plans, would have no adverse environmental effect, but would retain the established historic, rural and scenic character of the surrounding rural, agricultural, and historic environment.

Response: The HPSR prepared by Tom Origer and Associates for the DEIR found the Watmaugh Road Bridge retains a high degree of integrity in all aspects. The location, setting, and feeling of the bridge are relatively unchanged as stated in the comment. The DEIR found that based on an evaluation by Tom Origer and Associates (2012), the removal of the bridge would cause a substantial adverse change to the bridge such that it

would no longer be a significant historical resource and concluded that the project would have a significant adverse impact to a historical resource.

The commenter incorrectly asserts that “the DEIR must address how the retrofit/rehab of the historic bridge alternative project, based on sufficient design plans, would have no adverse environmental effect, but would retain the established historic, rural and scenic character of the surrounding rural, agricultural, and historic environment.” and is not required by CEQA. The DEIR is only required to assess the project’s potential impacts on the physical environment and while CEQA does require that the DEIR analyze a reasonable range of alternatives, (which it does), it does not mandate that the DEIR include the analysis of alternatives impacts in the main discussion. The commenter offers no evidence to support their statement that the retro/rehab of the bridge would have no adverse environmental impacts.

- J-22 Comment: The commenter asserts that the DEIR must address and analyze the effects of the proposed bridge replacement project versus the retrofit/rehab of the historic bridge project to the existing natural and rural environment and scenic, visual and historic vistas at the project site and along Watmaugh Road. The DEIR must address the unique site sensitivity, the historic and engineering design authenticity, and the aesthetics of the proposed bridge replacement project versus the retrofit/rehab of the historic bridge project.

Response: Please see the response to J-21 above. In addition, the commenter incorrectly characterizes CEQA’s mandate as CEQA does not require that the DEIR address and analyze the effects of the proposed replacement project versus the retrofit/rehab that is championed by the commenter. To the contrary, CEQA requires that the DEIR assess the environmental impacts of the proposed project and as part of that evaluation, CEQA requires that the DEIR analyze a reasonable range of alternatives to the project. These were included in Section 7 of the DEIR which, includes three different rehab alternatives (Alternatives 3, 5 and 6) and a retrofit alternative that was not carried forward for further study because it would not meet the objectives of the project.

- J-23 Comment: The commenter points out that the DEIR must analyze the proposed replacement bridge project and the retrofit/rehab of the historic bridge project for the impacts on the Historic District (HD) zoning and the Sonoma County Historic Bridges Thematic District. The Watmaugh Road Bridge is a significant local historic landmark, designated as Sonoma County Historic Landmark #103. The County found the historic bridge to be eligible for the California Register. The Citizens for the Preservation of the Sonoma Historic Bridges in discussion with the State Office of the Historic Preservation believe that the historic bridge is eligible for the National register of Historic Places and has been inadequately reviewed as such by the County staff.

Response: This comment is not specific as to why the cultural resources review the Draft EIR is inadequate. Notwithstanding this lack of specificity, commenter incorrectly asserts that the retrofit/rehab of the historic bridge project for the impacts on the Historic

District (HD) zoning and the Sonoma County Historic Bridges Thematic District. As noted in the response to Comment J-22, above, CEQA requires that the Draft EIR assess the environmental impacts of the proposed project. As part of that evaluation, CEQA requires that the Draft EIR analyze alternatives to the project, which the Draft EIR did, including three different rehabilitation alternatives (Alternatives 3, 5 and 6) and a retrofit alternative that was not carried forward for further study because it failed to meet most of the project objectives. The comment is acknowledged and will be forwarded to and considered by the decision-makers at the County of Sonoma Board of Supervisors.

- J-24 Comment: The commenter asserts (again) that DEIR contains no design plans for review and analysis of the proposed project and County DTPW staff says that no plans will be available for 6 to 12 months. The commenter then reassert that mitigation measures proposed are vague, cannot be measured or verified, and cannot be analyzed for their integrity by the decision makers or the public. The commenter reiterates their point that the public was told that 30% design plans were needed in which to provide sufficient project detail to prepare the EIR.

Response: Please see the responses to J-4, J-9, J-11, J-15, and J-21 regarding plans as well as J-14 on the assertions made on mitigation measures.

- J-25 Comment: The commenter asserts that the DEIR is deficient in its transportation/traffic analysis and conclusions as to the potentially significant impacts of the proposed project effects and potentially significant impacts the proposed project, with increased load limits and speed, would have the rural two-lane Watmaugh Road, the intersections of Watmaugh Road and Arnold Drive and Watmaugh Road and State Highway 12. The DEIR lacks a Traffic Impact Study. CEQA does not permit mitigation measures formulated based on future studies or studies after certification of the EIR or after project approval.

Response: The speed limit through the project area is currently posted at 35 MPH and no increase in that speed limit is planned as part of this project. Local law enforcement is responsible for controlling traffic at safe speeds and is outside of CEQA. The speed limit will not be increased as part of the project. Although the new bridge will not be load limited, any increase in large trucks is anticipated to be very small; given this route is not a preferred route in the area and will not become a designated truck route. The DEIR used a Traffic Technical Memorandum that includes the needed elements for an adequate CEQA review.

- J-26 Comment: The commenter refers to a letter dated August 21, 2012 to Mr. Rich Stabler, in response to the County's Notice of Preparation, California Department of Transportation (Caltrans) states that a Traffic Impact Study (TIS) needs to be prepared as part of the CEQA environmental review process and to date a TIS has not been submitted (refer to Attachment 6). The TIS should be prepared by an independent Traffic Consultant. The TIS, including current and future average daily traffic (ADT) and AM and PM peak hours for both automobile and truck traffic due to increased truck traffic

loads and increased speed, should address the increase in traffic on Watmaugh Road as a result of the proposed project, including traffic at the intersections of Watmaugh Road and Arnold Drive and Watmaugh Road and State Highway 12 as well as other relevant road segments and intersections.

Response: The commenter is correct to note that Caltrans requested the preparation of a Traffic Impact Study (TIS) in their comment letter on the NOP, however, Caltrans did not include this comment in their response letter to the Draft EIR. The County determined there was no need to prepare a TIS for a project that replaces an existing two-lane bridge with a new two-lane bridge, on a rural minor collector. The project is not traffic generating, and vehicles will continue to use the route as they do today. In addition, Watmaugh Road is not a primary truck route, and would not be expected to change as a result of replacing the bridge.

- J-27 Comment: The commenter describes their opinion that TIS must address the issue that if Watmaugh Road is designated as a Rural Minor Collector, why would it need to accommodate regional transportation needs. The *DEIR* must address whether a retrofitted/rehabbed historic bridge project, together with the existing road conditions, can sufficiently meet the local public transportation needs and will not conflict with, or impact, the level of service standards and travel demands of Watmaugh Road as a rural minor collector. The TIS must include a discussion of alternative routes used for regional traffic, including, but not necessarily limited to, vehicular traffic capacity, speed, and load limits, such as Leveroni Road and Petaluma Avenue, Riverside Drive and State Highway 12. The TIS must address the width of the existing historic bridge to accommodate two 11-foot travel lanes and the use of Watmaugh Road and the retrofitted/rehabbed historic bridge as a safe alternative route for local traffic. The TIS must address for safety purposes the reduction of the posted speed limit to further advance the safety of retrofitting/rehabbing the historic bridge with a posted speed limit of 15 mph across the bridge. The TIS must provide a discussion and analysis that Watmaugh Road is not designated as a bike path in the County's General Plan, and Watmaugh Road lacks adequate shoulders or bike lanes to accommodate bicyclists or pedestrians. The TIS should address as an option to a replacement bridge project, the design and construction of a pedestrian-/bike-way to augment the retrofitted/rehabbed historic bridge to accommodate bicyclists and pedestrians now, or in the future.

Response: The commenter makes no reasoned argument as to why a TIS is needed for a project that replaces an existing two lane bridge with a new two-lane bridge. In addition, the commenter offers no reasoning why replacing the existing two-lane bridge with a new two-lane bridge would change the use of Watmaugh Road to accommodate regional transportation needs. The project is designed to meet the objectives of the project, as listed on page 3-2 of the Draft EIR. As discussed in comments above, CEQA requires that the Draft EIR analyze potential impacts of the proposed project, not policy decisions of the Board of Supervisors related to regional transportation needs.

- J-28 Comment: The commenter points out that DEIR must adequately address Mandatory Findings of Significance including whether the project has the potential to degrade the quality of the environment, substantially reduce the habitat of the fish or wildlife species, cause a fish or wildlife species to drop below self-sustaining levels, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history; and whether the project will have cumulative impacts.

Response: The commenter correctly notes that the DEIR must adequately address the Mandatory Findings of Significance under CEQA's dictates but does not assert that the DEIR has failed to make these findings. We direct the commenter to Item 18 of the Initial Study, attached to the DEIR as Appendix D. Item 18 (found on pages 44 and 45 of the Initial Study) delineates the Mandatory Findings of Significance the County must make under CEQA and sets forth the County's specific findings with respect to the proposed project.

- J-29 Comment: The commenter asserts that the DEIR fails to provide clear objectives that will direct the lead agency to obtain adequate plan and thorough analysis of the seismic retrofit/rehabilitation of the historic bridge alternative project (CEQA Guidelines Section 15124) including detailed cost analysis. A primary objective of the EIR must be the preservation of the historic Watmaugh Road Bridge (Sonoma County Landmark #103) based on engineering plans, technical data, Caltrans exceptions (refer to Attachment 7, City of Healdsburg Resolution No. 25-2011) as needed, and detailed cost analysis.

Response: This comment is not specific as to why the objectives in the Draft EIR are unclear and inadequate, and thus cannot be responded to. The comment will be passed on to the decision makers. The commenter is referred to page 3-2 of the Draft EIR for the project objectives, which are clearly stated. The Draft EIR, per CEQA, is to evaluate a proposed project's effects on the environment, not on preserving historical resources. That said, the County has considered preserving the bridge as a feasible alternative. See section 7 of the Draft EIR for the alternatives discussion.

- J-30 Comment: The commenter points out that as part of the environmental review process under CEQA, within the context of preparation of the DEIR, a reasonable range of alternatives, including retrofitting and rehabbing the existing historic bridge, must be included in the environmental evaluation. The commenter then asserts that in order to sufficiently analyze the seismic retrofit/rehab of the historic bridge alternative project, the DEIR must include 30% preliminary design plans – including the approaches on both ends – engineering analysis, field investigation and data gathering, and cost analysis. Design plans and engineering analysis for the retrofit/rehab of the existing historic bridge alternative project must be in sufficient detail to be peer reviewed. As discussed in the Aesthetic Section above, no design plans, either for the proposed project or the seismic retrofit/rehab of the historic bridge alternative project been prepared or reviewed as part of the DEIR in order provide sufficient information to decision makers or the public.

Response: Commenter incorrectly asserts that the Draft EIR is required to include 30% preliminary plans for all alternatives analyzed. That said, the County did rely on 30% design plans for the analysis provided in the Draft EIR. The level of detail required in analyzing alternatives is not subject to any precise formulation. In *Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners*, (1993) 18 Cal.App.4th 729, 745-746, the court explained the governing rule as follows: “No ironclad rules can be imposed regarding the level of detail required in consideration of alternatives. EIR requirements must be ‘sufficiently flexible to encompass vastly different projects with varying levels of specificity.’ [Citation.]” The degree of specificity required “will correspond to the degree of specificity of the underlying project.” The level of detail utilized in the Draft EIR was adequate given the project type. For example: any of the alternates required access to the creek channel with similar associated impacts. Please see responses to J-15 and J-24.

- J-31 Comment: The commenter feels that the DEIR must provide cost analysis of the proposed replacement project and the alternative seismic retrofit/rehab of the historic bridge alternative project including a break-down of costs sufficient to be peer reviewed, including, but not necessarily limited to, structural and seismic work, decking, approach spans, truss work, floor beams and abutments, procurement of road rights-of-way, pier and foundation work, roadway improvements, utility relocations and demolition.

Response: Commenter incorrectly asserts that CEQA requires that the DEIR provide a cost analysis of both the proposed project and the various alternatives. There is no CEQA requirement that DEIR should provide a cost analysis of the proposed replacement project or any alternatives. The courts have uniformly found that an EIR is an informational document to assess environmental impacts and not required to include ultimate determinations of economic feasibility. (*San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656, 689.) More importantly, CEQA Guidelines section 15131 expressly provides that economic data is not required to be included in an EIR, and CEQA states that a finding of infeasibility shall be based on “substantial evidence in the record” (Cal. Pub. Res. Code § 21081.5). The record of the proceedings consists of many different types of materials, not just the EIR. (Cal. Pub. Res. Code § 21167.6(e).) Thus, the DEIR is not required to provide a cost analysis for the proposed replacement project or any alternatives.

- J-32 Comment: The commenter refers to a memo to the Sonoma County Landmarks Commission, dated February 2011, Thomas F. O’Kane, Deputy Director of Transportation & Public Works, states that “the initial estimate for replacing a structure was estimated to be in the range of \$5 million.” The cost of a new bridge according to the “Final Retrofit Strategy Report” prepared by Imbren and Associates dated May 7, 1997, (retained by Cal Trans) states on page 42, that the cost of a replacement bridge would be approximately seven (7) times greater than a retrofitted bridge.

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision makers.

- J-33 Comment: The commenter states that the Citizens for the Preservation of Sonoma Historic Bridges (CPSHB) value safety, bicycle facilities, and judicious use of public funds. We urge the Board and County staff to uphold the County's own commitment to: "Protect structures and sites that provide significant examples of architectural styles of the past, or which are unique and irreplaceable assets to the County and its communities" (Sonoma County Landmarks Commission By-laws). The CPSHB applauds the Sonoma County Board of Supervisors and the Sonoma County Department of Transportation and Public Works staff for restoring and preserving the O'Donnell Lane Bridge in Glen Ellen with the use of federal funds through Caltrans. The CPSHB notes that this historic bridge retains a load limited, as does the historic Watmaugh Road Bridge.

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision makers.

- J-34 Comment: The commenter states that there are many case studies across the country of examples of the preservation of metal truss bridges. The Napa County citizens and governmental agencies and staff have worked together and have gone to considerable efforts to preserve their County's historic bridges. The citizens of Sonoma Valley and the city of Sonoma are likewise proud of their efforts to preserve their historic structures and heritage. The County of Sonoma has been destroying the Watmaugh Road Bridge over time through neglect and poor planning. It is now time to retrofit and rehabilitate the bridge, which is a feasible alternative to the proposed project

Response: This comment does not address the adequacy of the Draft EIR. More importantly, the commenter has offered no evidence to show the relevance of any of the case studies proffered to California in general or the proposed project specifically. Each case study set forth in Attachment J.8 is from a jurisdiction outside of California. While the policy arguments may be equally applicable in California, none of these jurisdictions must address the seismic concerns attendant to construction in California. In addition, there is no evidence to suggest the other topographical or engineering issues faced by each case study are similar to the issues faced with the proposed project. The comment is acknowledged and will be forwarded to and considered by the decision makers.

- J-35 Comment: The commenter states that the CPSHB requests that Sonoma County staff and the Sonoma County Board of Supervisors pursue the seismic retrofit and rehabilitation of the historic Watmaugh Road Bridge for continued use as a vehicular bridge and take whatever action is necessary to seriously review this matter independently and diligently as it affects all of us. Demolition of the historic Watmaugh Road Bridge by the wrecking ball or neglect is irreversible and is a significant impact under CEQA.

Response: This comment does not address the adequacy of the DEIR but, rather, requests that the County pursue the seismic retrofit and rehabilitation of the Watmaugh Road Bridge championed by the commenter. The comment is acknowledged and will be forwarded to and considered by the decision makers.

Letter K. Kenneth Niles

- K-1 Comment: The commenter references page 7.2 of the Alternatives Section of the DIER and other pages that discuss biological impacts and essentially states his wishes to include a valley oak that is likely over 100-years old with a 7-foot diameter that could be impacted by the parallel bridge alternative (Alternative 2). He continues by listing a second heritage oak that may be affected and is in the county right-of-way.

Response: As with all DTPW construction projects, efforts are made to save as many trees as possible. The large valley oak that the commenter references will not be removed with Alternative 2. The smaller oak found in County right of way would be removed. As described in the Draft EIR , Item 4 on Page 4-11, a number of mitigation measures are included to minimize the number of trees removed by the proposed project. and protect the remaining trees not directly affected by the project.

- K-2 Comment: The commenter states that Alternative 5 (Rehabilitate Existing Bridge and Add a Parallel Bicycle/Pedestrian Bridge Downstream) is a “joke” because the idea is absurd. The commenter asks why it is included as an alternative.

Response: This comment does not specifically address the analyses contained in the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision-makers at the County of Sonoma Board of Supervisors. In addition, during the scoping meeting for this project at the Environmental Review Committee (ERC), this concept was discussed and added as an alternative to be analyzed in the EIR. The purpose of the alternatives analysis in an EIR is to consider potentially feasible alternatives that meet the majority of the project’s objectives. This alternative recommended by ERC met this criteria.

- K-3 Comment: The commenter asks that we include a letter from Caltrans to Tom O’Kane that gives approval to a 30-ft wide roadway.

Response: This comment does not specifically address the analyses contained in the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision-makers at the County of Sonoma Board of Supervisors.. The County is not aware of the letter to which the commenter refers.

- K4 Comment: The commenter also attaches their previous comment letter, which has been marked for the purposes of this Responses to Comments Document as Comment Letter B, that was submitted on October 31, 2012. Their prior letter is included as Comment and Response to Letter B in this FEIR.

Letter L. Nancy Simpson

- L-1 Comment: The commenter states that the Sonoma County Landmarks Commission's by-laws Section 2b-2, "review shall be in accordance with the standards and criteria adopted by the Landmarks Commission, which are based on the U.S. Secretary of the Interior's guidelines. The commenter continues by stating that the DEIR does not follow its own policy of consideration of the policy outlined above, thus the DEIR is insufficient in that the Watmaugh Road Bridge must be treated in a manner consistent with this County policy.

Response: County Policy OSRC-19a: Designates the County Landmarks Commission to review projects within designated historic districts. In 1998 Board of Supervisors established the historic bridge thematic district, (Resolution 98-0046). The Board of Supervisors also adopted specific procedures that govern Landmarks Commission review of HD bridge removal projects, which was adhered to on this project prior to the initiation of CEQA. In addition, CEQA was formulated to assess physical effects on the environment and not effects on policy. The issue raised by the comment (consistency with an adopted policy) is one element that is reviewed in the DEIR, in Section 5C, but is not the focus of the document. The issue raised by the commenter will be decided by the Board of Supervisors but absent a physical impact to the environment does not constitute a significant impact. More importantly, CEQA dictates the content and format of an EIR and County policies do not.

- L-2 Comment: The commenter points out that in Section 5A-10 of the DEIR the bridge replacement design includes reuse of the trusses found on the existing bridge as project design features. The commenter believes that placing the trusses upon the new structure does not constitute historic preservation U.S. Secretary of the Interior's Standards for Rehabilitation, and these standards must be considered as part of the DEIR.

Response: The reuse of the trusses would not mitigate and is not intended to mitigate impacts other than that to visual resources (5A-10 is within the Aesthetics Section of the DEIR). Secretary of the Interior's standards only apply to resources eligible for listing on the National Register. As we have stated continuously in the responses to comments (see, e.g., responses to I-5 or I-9), the Watmaugh Bridge is not eligible for listing on the National Register; accordingly, the Secretary of the Interior Standards have no application to the replacement of the existing bridge. Also, the standards cited by the commenter relate to the potential rehabilitation of the bridge which is discussed on page 7-9 through 711- of the DEIR.

- L-3 Comment: The commenter essentially states that the Aesthetics Mitigation Measure A-2 is an unacceptable mitigation and based on County policy, is not consistent with the U.S. Secretary of the Interior's standards for rehabilitation of historic structures.

Response: As previously noted in the response to Comment L-2, above, the Secretary of the Interior's standards for rehabilitation apply only to structures eligible for listing on the National Register and, therefore, have no application to the Watmaugh Bridge. Furthermore, the comment offers no explanation as to what specifically makes Mitigation Measure A-2 unacceptable other than the commenter's own summary statement. For a more in-depth discussion of this issue, see the response to L-2 above.

- L-4 Comment: The commenter essentially states that the DEIR is insufficient due to the lack of current studies in regard to the Watmaugh Road Bridge's eligibility for inclusion in the National Registry of Historic Places and concludes that current evaluation is required to fully realize historic relevance and funding.

Response: As stated in Section 5B of the DEIR, A Historical Property Survey Report (HPSR) that was prepared by Tom Origer and Associates in 2001 to determine whether properties within the project's Area of Potential Effect (APE) may meet (among other standards) the criteria for listing in the National Register of Historic Places (National Register). The HPSR was reviewed and approved by Caltrans for FHWA in 2002, in accordance with Section 106 of the National Historic Preservation Act (NHPA). Similarly in 2004, during a major statewide historic bridge evaluation effort, Caltrans completed an evaluation for the bridge and also found it ineligible for the National Register. The conclusions of the HPSR found that while the bridge does possess a high degree of integrity, it does not meet any of the necessary criteria. These criteria remain unchanged and are still current today.

- L-5 Comment: The commenter asserts that the destruction of the Watmaugh Road Bridge will result in a dismantling of the thematic bridge district, ultimately sacrificing the historic merit of the county's most important districts.

Response: Because the bridges each qualify individually, the removal and rezoning of the Watmaugh Bridge under the proposed project does not make the remaining bridges ineligible for HD zoning or require their rezoning and the proposed project make it more likely that any of the remaining bridges would be removed. Currently, there are no additional proposals to remove other bridges within the HD bridge thematic district and there are no plans to change or dismantle the District. (Also see Items I-5 and I-6).

- L-6 Comment: The commenter states that under section 5B.8 Cumulative Impacts, the DEIR states "there are no additional proposals to remove other bridges within the HD bridge thematic district." The commenter then states that new information based on a report from the Sonoma County Project Listings, Transit Projects dated September 28, 2012, and it is unclear if additional bridges included in the district will be demolished.

Response: This document appears to be taken from transportation planning website and should be viewed from the broad context of transportation planning. The bridges that would appear as replacements are planned new bridges that would bypass the older existing bridges and leave the existing structures in place. As stated in the DEIR, a few

of the HD bridges will likely have projects that will construct new parallels bridges located nearby (e.g., Big Sulphur Creek Bridge and the Chalk Hill Bridge). Also as stated in the DEIR, there are no current proposals or plans to remove other bridges (other than the Watmaugh Road Bridge) that are zoned HD. (Also see Items I-5 and I-6).

- L-7 Comment: The Commenter asserts that the facts listed in the report (found on the transportation planning website) combined with the speculation of unknown plans, studies and EIR's for the other bridges in the historic district that have not yet been completed or submitted, demonstrates the invalidity of the statement that "there will be no cumulative impacts on the historic thematic bridge district." The Watmaugh Road Bridge must be considered as part of the Sonoma County Historic Thematic Bridge District, and considering new information documented above, additional information and studies must be analyzed to determine the cumulative impact. The demolition of these bridges one at a time will have an impact on the integrity of the entirety of the bridge district established to preserve Sonoma County historic bridges.

Response: While some of the documents that the commenter includes do describe local bridges that have historical significance (i.e., at minimum are locally zoned as HD) and list these as replacement projects, these documents appear to be taken from a transportation planning website and should be viewed from the broad context of transportation planning. The bridges that would appear as replacements are new bridges that would bypass the older existing bridges and leave the existing HD structures in place. As stated in the DEIR, Table 5C-2, a few of the HD bridges will have projects that will construct new parallels bridges located nearby. With regards to the Chalk Hill Road Bridge, it is clearly stated on the DTPW web site, and in the Draft EIR (Table 5C-2) that the proposed project would leave the existing bridge in place and construct a new parallel bridge. Also as stated in the DEIR, there are no current proposals or plans to remove other bridges (other than the Watmaugh Road Bridge) that are zoned HD please see the response to Comment L-6 above.

- L-8 Comment: The commenter points out that in Section 5B Cultural Resources of the DEIR, the report states the following: "Both Big Sulphur Creek Bridge and the Chalk Hill Bridge are planned have future projects that will construct new parallel bypass bridges located nearby where the existing historic structures will remain in-place (see Table 5C-2 in Section 5C)." This statement contradicts the report dated September 28, 2012 listed above and requires not only further study, but transparent disclosure of intent as well.

Response: Please see the response to Comment L-6 above and Items I-5 and I-6).

- L-9 Comment: The commenter states their opinion that the building of parallel bridges alongside historic bridges results in "demolition by neglect." The commenter then states that the U.S. Secretary of the Interior Standards, thus County policy, recommend the following criteria in this situation: 1. a property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

Response: As previously noted above, the Secretary of the Interior's standards for rehabilitation apply only to structures eligible for listing on the National Register and, therefore, have no application to the Watmaugh Bridge.

- L-10 Comment: The commenter essentially states that parallel bridges will not only change the original use of the structure as they are proposed to be closed to traffic and would not be maintained, but the addition of the new bridge would change the spatial relationship of the bridge to its cultural landscape. Additional consideration is that the Landmarks Commission found that the building of a parallel bridge in the case of the Watmaugh Road Bridge was an unacceptable alternative due the impact a new adjacent parallel bridge would have on the historic structure and its surrounding district. Further analysis is required and would most certainly quantify this point.

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision makers at the Board of Supervisors. For additional discussion of this issue, please see response to comment L-9, above.

- L-11 Comment: The commenter respectfully requests that the Sonoma County Board of Supervisors and County Staff addresses the concerns in this and other letters submitted by the public and respect the historic preservation policy the County has established as to maintain the level of historic integrity deserving of our residents. The commenter concludes that the community has been "saving" the historic Watmaugh Road Bridge since 1981.

Response: This is not a comment on the adequacy of the Draft EIR, but will be considered by the decision makers.

- L-12 Comment: The commenter states that they are not convinced this is a complete DEIR and believe further unbiased, transparent studies must be presented to determine whether all impacts have been considered under CEQA. The objectivity of the DEIR is imperative and it seems concerning that the County, with few exceptions, has prepared most of the reports and studies within this document.

Response: The DEIR needs to reflect the independent judgment of the Lead Agency and the Lead Agency is responsible for the adequacy and objectivity of the draft EIR. Public Resource Code § 21082.1(a) and Guidelines § 15084(a), simply require that the Draft EIR must "be prepared directly by, or under contract to," the lead agency. Guideline Section 15084 further provides that the lead agency may employ any number of different arrangements to get the document drafted, including having its own staff do the work.

Letter M. Patricia B. Daffurn

- M-1 Comment: The commenter expressed the importance of the Watmaugh Road Bridge to the history of Sonoma, and the value of our landscapes in the County and our importance to California history. The commenter asks that we honor bridges built before the automobile era, which would provide Sonoma with another historic monument to our significant California past.

In addition, the commenter stated that the wonderful landscapes, charm, friendliness and glimpses into the past, were not addressed in the Draft EIR.

Response: The comments regarding the importance of the bridge to the County are not comments on the adequacy of the Draft EIR, but will be passed on to the decision makers.

Charm, authentic architecture, friendliness, and glimpses into the past are not issues required to be addressed in an EIR. The Draft EIR does address impacts to the landscapes surrounding the bridge in section 5A, Aesthetics; and Appendix D, Initial Study, section 4, Biological Resources; and considers the architecture as it relates to the bridge design and its significance in the Draft EIR section 5B, Cultural Resources. It should also be noted that CEQA is designed to assess physical effects of the project on the environment and not the effects on policy. The issue raised by the comment will be decided by the Board of Supervisors and are absent physical impacts to the environment and do not constitute a significant impact under CEQA.

- M-2 Comment: The commenter disagrees with the Draft EIR which states that the proposed project would not add capacity to the existing roadway and would not create growth. The commenter states that by the changing rural character of the bridge and by widening or adding another parallel bridge that as study is needed, not just prediction. Cumulative impacts are not enumerated.

Response: As described in the Draft EIR, the project is not a roadway capacity increasing project, but a safety improvement project (i.e., no new travel lanes are added). The new bridge will function as the current bridge does. The comment discussing cumulative impacts is not specific. Section 6.6 of the Draft EIR discusses cumulative impacts. As noted therein, these impacts were considered in the context of the individual impacts assessed in the Draft EIR, and the Draft EIR concluded the project would not result in any cumulative impacts in any of the issue areas.

- M-3 Comment: The commenter states that no safety studies were conducted with regard to a widened bridge with greater truck load capacity or if a parallel bridge was built.

Response: Trucks will continue to use the new bridge as they do the existing bridge, including the possibility of larger trucks given, as the new bridge will not be load limited.

The new bridge will have shoulders and improved site distance, and will be safer than the existing bridge for all travelling across it, including trucks.

Note if a parallel bridge were constructed (Alternative 2), the existing bridge would be closed.

- M-4 Comment: the commenter states that the Initial Study determined no significant impacts related to noise, but did not study the impacts of increased truck loads with a new bridge or parallel bridge.

Response: Commenter incorrectly asserts that the Initial Study concluded the proposed project would result in no significant impacts related to noise without studying the impacts of increased truck loads on the new bridge. Appendix G of the Draft EIR includes the noise study conducted in connection with the proposed replacement project. Contrary to the comment's assertions, the noise model used in this study does take into account a vehicle mix, including trucks. It is worth noting that, due to its rural character, Watmaugh Road is not currently used as a primary route for truck traffic. Although the new bridge will not be load limited, any increase in large trucks is anticipated to be very small, given this route is not a preferred route in the area. For further information, see response to comments M-2 and M-3.

- M-5 Comment: The commenter states that the bridge may have potential for Historic Registry with the additional information about James Watmough (info provided as attachment to comment letter). Commenter noted the report used in the Draft EIR is out of date and should be re-analyzed in light of this new information.

Response: The Draft EIR relied on experts in the field of architectural history to determine that the bridge is not eligible for the National Register (see Appendix F for details) and the National Register eligibility question was raised in 2001 and in 2004, each time the bridge was found ineligible. The information provided by the commenter does not provide evidence that the bridge is "associated with lives of persons important in our past" (CEQA Guidelines, section 15064.5 (a)(3)(B)). Note that the historic name of the bridge, as described in Appendix F of the Draft EIR, is the Hopke Bridge.

- M-6 Comment: The commenter states that the Draft EIR has inadequate current studies on traffic, environment, and significant non-mitigating impacts.

Response: The comment is not specific, making it difficult to provide a response. However, contrary to the commenter's assertion, the Draft EIR evaluated impacts of the project the environment, included information from a Traffic Technical Memorandum prepared by County engineering staff dated, August 2012, and proposed feasible mitigation measures to reduce impacts. These analyses and mitigation measures were crafted based on existing studies and more recent updates, staff experience, and fully comply with CEQA requirements and applicable protocols for environmental mitigation.

- M-7 Comment: The commenter states that section 7.6 does not study the project impacts of the parallel bridge on biological resources. In addition, the Draft EIR does not reference the endangered wood duck population that returns every year.

Response: Section 7.6 of the Draft EIR does include discussion of the biological impacts of the downstream bridge alternative. While migrating wood ducks are not threatened or rare species, they may visit the project site in the winter months; however, project construction in the channel will occur during the summer months only. Wood ducks (and any other duck species) would not be precluded from moving through the project site during construction. Standard mitigation limiting construction activity during nesting seasons will be implemented if the County proceeds with the project. This mitigation will ensure that nesting fowl are adequately protected.

- M-8 Comment: The commenter states that California Endangered Species Act studies were not completed, and that the data in the Draft EIR was old. In addition, the Draft EIR did not address the river otter seen in this area. The commenter states that the comment letter on the NOP provided by DFG included species that were not addressed in the Draft EIR.

Response: Appendix D, the Initial Study for the project, includes a detailed discussion of the biological resources on site and associated impacts of the project, including the species noted by CDFG in their comment on the NOP. The river otter has no listing status; however, it would be able to freely move through the project site during construction.

- M-9 Comment: The commenter stated that no hydraulic analysis of the bridge abutments and piers were undertaken.

Response: The comment is not clear if referencing the existing bridge or the proposed bridge, however, as described in Appendix E of the Draft EIR, it has been determined in multiple evaluations that the bridge has significant scour issues at the piers, along with the other deficiencies as described in the Draft EIR.

- M-10 Comment: The commenter asserts that a letter was received on August 21, 2012 by Rich Stabler from Caltrans that all archaeological records research must be less than five years old.

Response: The County is not aware of the letter referenced by the commenter; nor was a copy of said letter provided by commenter with the comment letter. The Draft EIR has a detailed discussion and mitigation measures related to archaeological resources – see page 5B-7 in the Draft EIR.

- M-11 Comment: The commenter states that the Landmarks Commission consulted Yolanda Solano (PRMD staff), not the Sonoma representative to the Landmarks Commission, Nancy Simpson.

Response: Although not a comment on the adequacy of the Draft EIR, the comment is not clear. Section 8.2 of the Draft EIR, Agencies and Persons Consulted, states that Yolanda Solano consulted the Landmarks Commission. As standard practice, staff consulted Yolanda Solano, as her role is the staff liaison to the Landmarks Commission.

- M12 Comment: The commenter states that the Draft EIR does not include studies of constructing the downstream bridge and the impacts to the historic district, including the scenario if the existing bridge was determined to be eligible for the National Register.

Response: The bridge has been determined not to be eligible for the national Register, and the Draft EIR cannot speculate into the future of what might be. Section 7.6 of the Draft EIR discusses the impacts of Alternative 2, Construction of a Downstream Bridge Leaving Existing Bridge in place. CEQA requires that the Draft EIR assess the environmental impacts of the proposed project. As part of that evaluation, CEQA requires that the Draft EIR analyze alternatives to the project, which the Draft EIR did (see Section 7 of the DEIR). The level of detail required in analyzing alternatives is not subject to any precise formulation. In *Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners*, (1993) 18 Cal.App.4th 729, 745-746, the court explained the governing rule as follows: “No ironclad rules can be imposed regarding the level of detail required in consideration of alternatives. EIR requirements must be ‘sufficiently flexible to encompass vastly different projects with varying levels of specificity.’” The degree of specificity required “will correspond to the degree of specificity of the underlying project.” The level of detail utilized in the Draft EIR was adequate given the project type – formal studies are neither required, nor would they change the conclusions. For example: any of the alternates required access to the creek channel with similar associated impacts. The comment is acknowledged and will be forwarded to and considered by the decision-makers at the County of Sonoma Board of Supervisors.

- M-13 Comment: The commenter asserts that traffic reports related to the parallel bridge do not take into consideration that trucks would allow truck traffic not allowed currently on the existing bridge given its load limit.

Response: The project is not traffic generating, and vehicles will continue to use the route as they do today. In addition, Watmaugh Road is not a primary truck route, and would not be expected to change as a result of replacing the bridge.

- M-14 Comment: The commenter asserts that the Draft EIR did not include “as built” construction maps available from Caltrans, and that the EIR relies on inaccurate schematics. In addition, the visual analysis conducted was based on projection, not actual studies.

Response: The comment is not specific – however, the Draft EIR relied on plans adequate to conduct an environmental impact analysis. The visual analysis was based on the County’s Visual Assessment Guidelines, photo simulations, and meets industry standards presented in the Draft EIR.

- M-15 Comment: The commenter appears to quote the document in Appendix J, the FHWA “Bridge Preservation Guide” which states “A successful bridge replacement program seeks a balanced approach to preservation and replacement. Focusing only on replacing deficient bridges while ignoring preservation needs will be inefficient and cost-prohibitive in the long term.”

Response: The Draft EIR includes discussions of the various alternatives to replacing the bridge. Section 7.4 A considers the alternative, Seismic Retrofit Existing Bridge to meet the No Collapse Criteria. This alternative was rejected from further consideration as it did not meet the majority of the project objectives. Section 7.6 includes a discussion of Alternative 2, Construction of a Downstream Bridge Leaving Existing Bridge In Place. This alternative is analyzed as a viable project “Bridge Preservation Guide” focuses on replacing deficient bridges while ignoring preservation.

- M-16 Comment: The commenter asserts that the Bibliographies are out of date in particular, as related to James Watmough that could change the eligibility status of the bridge.

Response: See response to comment M-5.

- M-17 Comment: The commenter asserts that the Draft EIR failed to mention various tribes known from the area, and did not include consulting with the Santa Rosa Junior College, which the commenter asserts has extensive information about the activities of Native Americans in the vicinity of the project.

Response: As described in Appendix F, Cultural Reports, Historic Property Survey Report, prepared by Tom Origer and Associates, a large number of resources were examined, including the Northwest Information Center at Sonoma State. In addition, they sought out comments from six Native American groups, and only one group, the Native American Heritage Commission (NAHC) responded. The NAHC had no record of sacred land in or near the area affected by the project. The fact that Santa Rosa Junior College also has information on Native American activities in the project area does not render the information in the Draft EIR inadequate or lacking as commenter suggests.

- M-18 Comment: The commenter states that the Bouverie Audubon Preserve was not contacted, as they have an extensive library of Native American information.

Response: See response to Comment M-17.

- M-19 Comment: The commenter asserts that the most destructive comment in the Draft EIR is that this is the only Warren Pony Truss in Sonoma County, and there are others in California so the demolition is not significant. The commenter noted citizens should not have to travel to other parts of California to view one of our few reminders of the past.

Response: As stated in the Draft EIR in Section 5B.4 Historic Context, the Watmaugh Road Bridge is one of two Warren pony trusses in the county. In addition, the draft EIR found that although the loss of the Watmaugh Road Bridge is individually considered to

be a significant adverse impact to historical resources, the loss of the bridge would not result in cumulatively considerable contribution and would be a less than significant cumulative impact.

- M-20 Comment: The commenter asks that the County to review the DEIR with the goal to save the existing bridge and studies have been prepared that suggest that the bridge can be saved.

Response: The goal of the DEIR is to provide an adequate assessment and disclosure of the potential physical changes to the environment associated with the proposed project. The DEIR prepared for this project meets this goal. The policy decision of whether to proceed with the project as proposed or pursue a different approach, as championed by the commenter, is a decision vested with the decision makers at the Sonoma County Board of Supervisors. The comment is acknowledged and will be forwarded to and considered by the decision makers.

- M-21 Comment: The commenter asks why, after a 100-year flood event in 2005, the County did not do more repairs and maintenance of the bridge, including addressing the scour issues at the piers.

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision makers at the Sonoma County Board of Supervisors.

- M-22 Comment: The commenter asks why the information regarding James Watmough not used in determining that the bridge is eligible for the National Register.

Response: See response to M-5.

- M-23 Comment: The commenter urges the County to advocate, support, and promote the finding the Landmark Commission and demand current and accurate studies.

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision makers at the Sonoma County Board of Supervisors.

- M-24 Comment: The commenter stats that some of the processes that have been done to expedite the bridge demolition resulted in inadequate and inaccurate information, and encourages the board of Supervisors, if truly committed to saving our irreplaceable history, demand studies for rehabilitation and retrofit of the bridge.

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision makers at the Sonoma County Board of Supervisors.

M-25 Comment: The commenter states that a new stark, sterile and repulsive bridge will quickly solve the safety issues, but will be an indelible scar on the historic environment of Sonoma.

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision makers at the Sonoma County Board of Supervisors.

M-26 Comment: The commenter asserts that they were told that the County could not get federal money, in part due to the sufficiency rating of 4 out of 100 given to the bridge. In addition, the commenter states that the bridge should be judged by historic bridge standards, not current standards. The commenter asserts that reports say it is possible to raise the bridge to a sufficiency rating of around 80 with rehabilitation, but this has not been studied.

Response: The sufficiency rating is based on the current condition and use of the bridge, as is standard practice. The County is not aware of the report the commenter mentions that, with rehabilitation, the bridge could have a sufficiency rating of 80; nor was a copy of said report provided with the comment letter.

M-27 Comment: The commenter states that there are currently no pedestrian or bike lanes on Watmaugh Road, and asserts that no studies were done for an auxiliary access along the side of the bridge for bikes and pedestrians.

Response: Commenter incorrectly asserts that no studies were done for an auxiliary access along the side of the bridge for bikes and pedestrians. The Draft EIR does include an alternative, Alternative 5, Rehabilitate Existing Bridge and Add Parallel bicycle/Pedestrian Bridge Downstream (see section 7.6).

Letter N. Gail Johnson, Citizens for the Preservation of Sonoma Historic Bridges

N-1 Comment: The commenter raised the issue of funding, and referenced a letter from Caltrans that states federal funding is available for major reconstruction or replacement of bridges having a sufficiency rating less than or equal to 80, and are considered Structurally Deficient or Structurally Obsolete. In addition, the commenter discusses the County's proposed rehabilitation of the O'Donnell Lane Bridge in Glen Ellen, and suggests this effort should also be applied to the Watmaugh Road Bridge.

Response: This comment was received after the close of the comment period, however, the County has responded below.

Section 7.6 of the Draft EIR, Alternative 3, Rehabilitate the Existing Bridge, considers the option of rehabilitating the existing bridge, and determines that federal monies would not be available for this option. If the bridge was rehabilitated, it would not meet the required sufficiency rating to receive federal monies.

With regards to the comment on the O'Donnell Lane Bridge - this comment does not specifically address the analyses contained in the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision-makers at the County of Sonoma Board of Supervisors. Note that the O'Donnell Lane Bridge will be rehabilitated from the inside of the structure, i.e., the new structure will be hidden from view yet support the vehicle load. This option would not be feasible for the Watmaugh Road Bridge, as it would entail replacing the existing trusses, and substantially alter the appearance of the existing bridge. In addition, the O'Donnell Lane Bridge is not fracture critical (as the Watmaugh Road Bridge is).

**Letter O. State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit
(Scott Morgan, Director)**

O-1 Comment: The comment acknowledges the County's compliance with the State Clearinghouse review requirements for draft environmental documents pursuant to the California Environmental Quality Act, and transmits one letter from a responding agency, Caltrans.

Response: Comment acknowledged. The Caltrans comment letter attached, was also received by the County, and a response was prepared. See response to Letter H.

Summary of Public Hearing Comments on the Draft EIR

A public hearing on the Draft EIR was held by the County on September 6, 2012. The comments of each individual commenter from the public hearing are contained in the Planning Commission Minutes, below. Each comment is identified with a numeric designator. Responses to these comments follow the Planning Commission Minutes.

Transcription of public testimony from Watmaugh Bridge item dated 10/16/2012

“Gail Johnson, Sonoma, I apologize first off for our lack of understanding procedures, there are quite a few people who would like to have talked. I think they thought we had November to do that but now my understanding is November is for written comments. There are quite a few people. I am not qualified on a lot of the EIR issues that are out there, Joanna (illegible) who is very qualified, has a severe issue with a family and could not be here and she has a lot of concerns about the EIR and things that are not addressed in it so hopefully she will get them

PA - 1

written up in time to get them to you. My only comment that I see offhand, I was just down the Oregon coast last week and into Mendocino and Humboldt and saw these gorgeous bridges that were saved and maintained and authoritative and kept and the history that I saw everywhere you went had historic landmarks and places to stop – I hate to see us lose that. We are still losing that by doing the new bridge and I am thinking that there is a way to do it ..never saw it encased in the way that is being discussed, I saw these gorgeous old bridges that were just as beautiful as when they were built and I would hope we could preserve that. And it’s up to us it’s our opportunity to save this in Sonoma Co and as a Board that is your opportunity. One more bridge gone once we

PA - 2

do this. On a personal basis as far as the new bridge if we do it the way it is being suggested I have a major concern over the safety it’s not addressed in the EIR anywhere that I could find and it’s the traffic and what will happen when we widen this road the road is only 22 feet wide it’s used as even though a rural connector it’s used as a thoroughfare people fly down the road it’s posted at 35 and they are going 45 and the end passing when it gets to the bridge that slows them down when we put a bridge on here that another 20 feet wide actually 12 more feet people are even going to go faster and I worry about the safety of anybody...the safety of anyone coming down the road..the Niles, the Oncalas.. anyone coming out of their driveway it’s almost impossible now to get out let alone have a wide wide bridge that people will fly over 50-60 miles an hour. I don’t know how we adjust it, we have talked about it I don’t think signs are going to stop it.

Patty Dippern (sp?), You have a 350 some page document and you want me to address it in three minutes...I am wondering since there is not one else Zane said try to stay within three minutes, if you need another minute I am happy to give that to you. You do have an opportunity to submit comments in writing till November 12 at 5:00 p.m.

I would like to start with a couple of questions one is last time we were here I asked if you had been to the bridge and I was wondering if you had gone to the site. Any of you? So I guess not. My second question is the \$99,000 that was supposed to go to the other firm...what happened to that money? If you could tell me that. Anyhow, what I would like to do... I was going to read a

statement about how to save a bridge and I will just do the first step of each one...I'm not on TV am I?

Historic bridges are a look back into our past and reveal what life was during a period of history and help to complete the story of our national history. Historic bridges offer a deep connection to a community heritage, and Sonoma has a heritage like no other city in California as I am sure you are well aware. Metal truck bridges often have been the name of iron and steel mills imprinted on them and when the mills no longer exist there is a cyclical connection to this heritage which remains in the form of a historic bridge. By choosing to preserve historic bridges, you choose to ensure (illegal) under written text or photographs preserve bridges are living history and are a

PB - 1

direct physical connection to our past. You are under task to replace this bridge and it has not been proven in the EIR that the bridge cannot be rehabilitated. Not retrofitted, rehabilitated. There is no study in that regard. That is the number one problem with this issue.

PB - 2

On page 221 you talk about loss of the bridge and the impact culturally as less than significant. I think that is not a sufficient answer. On 2.2 you refer to the Landmarks Commission report but not one of their recommendations or suggestions is listed. And the major one was that a study be done about rehabilitating the bridge.

PB - 3

On 2.3 you talked about policies and what could happen environmentally but not one study has been done about what trees are there, how many are there and how many might be taken out. You talk about well once the new bridge is started that fish again will come out and by then what would they really accomplish when they find the different things that they talk about.

PB - 4

On 3.1 you talk about load limitations and how you measured the sufficiency of this bridge and you measured it in regard to today's bridges. You did not use historic bridge numbers so it got a four. There is no doubt in my mind, I have seen this bridge and there are problems, but does it need to be demolished and I call it demolished by neglect. In the 93 or 83 years there has been no, isn't that right Tom, no maintenance on this bridge. Only recently was there signage, there is nothing that says it is a California hysterical – historical – maybe historical monument. Only recently it came up that it is a narrow bridge, there is no caution for pedestrians, there is nothing about sharing the road, And Valerie when you were there in 2005 you had a very unique opportunity at that time to start doing some maintenance rather than deciding at that point that we would demolish this bridge. For that I hear you are directly responsible.

PB - 5

You have a letter here talking about scours. Scour is when the bedrock disappears. We had two engineering firms, not individuals who said that the scour could be easily handled by putting major boulders upstream which would be environmentally correct and which would protect the historic piers that you have not seen. In your 200 letter from Caltrans it says there are no reports of scour or related problems in our supplemental report so that came in the last ten years.

PB - 6

In 5.3 b it talks about a national register and said there was no significant person. I have twelve pages here talking about James Horatio Watmough how he was a person for the sheriff's enforcement that was in Monterey at the time and I understand what you are saying but he was

PB - 6

there. He met with Vallejo, he met with Fremont, he was a part of the thing...he bought land from Vallejo. He acquired land grant and was very historically significant.

Zane interrupted.

I have twelve more pages....

I will submit it in writing. What I ask everybody is that you read this EIR and you read it hoping to save the bridge.

Responses to Public Hearing Comments

The responses to the comments of each individual commenter are contained below. For ease of reference, each response corresponds to the numeric designators identified in the Planning Commission Minutes.

- Gail Johnson
- Patricia Daffurn

Public Hearing Comment PA. Gail Johnson

PA-1 Comment: My only comment that I see offhand, I was just down the Oregon coast last week and into Mendocino and Humboldt and saw these gorgeous bridges that were saved and maintained and authoritative and kept and the history that I saw everywhere you went had historic landmarks and places to stop – I hate to see us lose that.

Response: This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision makers at the Sonoma County Board of Supervisors.

PA-2 Comment: On a personal basis as far as the new bridge if we do it the way it is being suggested I have a major concern over the safety it's not addressed in the EIR anywhere that I could find and it's the traffic and what will happen when we widen this road the road is only 22 feet wide it's used as even though a rural connector it's used as a thoroughfare people fly down the road it's posted at 35 and they are going 45 and the end passing when it gets to the bridge that slows them down when we put a bridge on here that another 20 feet wide actually 12 more feet people are even going to go faster.

Response: The current speed limit through the project area is posted at 35 MPH and no increase in that speed limit is planned as part of this project. Local law enforcement is responsible for controlling traffic at safe speeds and is outside of CEQA. Additional speed reduction measures, such as speed bumps, could be used at the project site in conjunction with the existing signage, at DTPW traffic engineer's discretion; however, the project is not expected to result in increased traffic speeds or environmental impacts related to increase vehicle speeds. The potential that certain motorists may exceed the posted speed limit is not a physical impact on the environment properly attributed to the proposed project. The control of such behavior is properly dealt with through law enforcement, not by imposing mitigation impermissibly on the proposed project.

Public Hearing Comment PB. Patricia Daffurn

- PB-1 Comment: You are under a task to replace this bridge and it has not been proven in the EIR that the bridge cannot be rehabilitated. Not retrofitted, rehabilitated. There is no study in that regard.

Response: The speaker misconstrues the purpose of CEQA. The purpose of CEQA is to assess the potential impacts associated with the project. As part of this assessment, the DEIR must analyze a reasonable range of alternatives capable of reducing or eliminating significant impacts associated with the project while still meeting most of the project objectives. The DEIR included the required alternatives analysis, including three different rehabilitation scenarios – Alternatives 3, 4 and 6. (Please refer to pages 7-9 to 7-11 of the Alternatives Section for an in depth discussion of the project alternatives.) It is not the role of CEQA to prove that the bridge cannot be rehabilitated. That determination is really a policy decision that will be made by the decision makers when they consider the project merits.

- PB-2 Comment: On page 2.21 you talk about loss of the bridge and the impact culturally as less than significant. I think that is not a sufficient answer. On 2.2 you refer to the Landmarks Commission report but not one of their recommendations or suggestions is listed.

Response: The speaker incorrectly asserts that the DEIR fails to list the recommendations or suggestions of the Landmarks Commission report. The Landmarks Commission recommendation is discussed on page 5B-5 of the DEIR.

- PB-3 Comment: On 2.3 you talked about policies and what could happen environmentally but not one study has been done about what trees are there, how many are there and how many might be taken out. You talk about well once the new bridge is started that fish again will come out and by then what would they really accomplish when they find the different things that they talk about.

Response: The Biological Impacts Section included information and an impact analysis on native vegetation and sensitive fish and wildlife species was included in the Initial Study that is summarized in Section 4 and is included in appendix J of the DEIR. Please see Item 7 on Page 4-12 and Item 3 on Page 4-9.

- PB-4 Comment: On Page 3.1 you talk about load limitations and how you measured the sufficiency of this bridge and you measured it in regard to today's bridges. You did not use historic bridge numbers so it got a four.

Response: Sufficiency ratings, like seismic ratings, are based on current requirements and no special allowances are made for historic structures because to do so could compromise public safety.

PB-5 Comment: The commenter states that we have a letter here talking about scour. Scour is when the bedrock disappears. We had two engineering firms, not individuals who said that the scour could be easily handled by putting major boulders upstream which would be environmentally correct and which would protect the historic piers that you have not seen. In your letter from Caltrans it says there are no reports of scour or related problems in our supplemental report so that came in the last ten years.

Response: In a letter to Kenneth Niles from Caltrans dated November 7, 2012, Caltrans verifies that the bridge foundations are scour critical and as a result they could fail due to erosion. This comment does not address the adequacy of the Draft EIR. The comment is acknowledged and will be forwarded to and considered by the decision makers at the Sonoma County Board of Supervisors.

PB-6 Comment: In 5.3 b it talks about a national register and said there was no significant person. I have twelve pages here talking about James Horatio Watmough how he was a person for the sheriff's enforcement that was in Monterey at the time and I understand what you are saying but he was there. He met with Vallejo, he met with Fremont, he was a part of the thing...he bought land from Vallejo. He acquired land grant and was very historically significant.

Response: The Draft EIR relied on experts in the field of architectural history to determine that the bridge is not eligible for the National Register (see Appendix F for details). The information provided by the commenter does not provide evidence that the bridge is "associated with lives of persons important in our past" (CEQA Guidelines, section 15064.5 (a)(3)(B)). Note that the historic name of the bridge, as described in Appendix F of the Draft EIR, is the Hopke Bridge. (Also see item B13).

CHAPTER IV

Revisions to the Draft EIR

The following corrections and changes are made to the Draft EIR, and are incorporated as part of the Final EIR. Revised or new language is underlined. Deleted language is indicated by ~~struckthrough~~ text.

The following are corrections, clarifications, and additions to the Draft EIR. These changes were made in response to issues raised by the commenter's during the public review period. Revisions made in response to comments on the Draft EIR are also presented in Chapter IV of the Response to Comments Document.

A. Revisions to the Draft EIR

1. The Initial Study, Appendix D, Section 16, Transportation/Traffic, add the following mitigation, as described in Response H-1:

Traffic Mitigation Measure No. H-1: Prior To project construction, a Traffic Management Plan (TMP) will be prepared to Caltrans Standard Specifications. "Manual on Uniform Traffic Devices." In addition, "Construction Area Traffic Control Devices" shall be followed during construction. Project plans and specifications shall also require that adequate signing and other precautions for public safety be provided during project.

Table of Contents:

4.6 CORRECTIONS AND CLARIFICATIONS TO THE INITIAL STUDY

Table 7-1 ~~Project Funding Options~~ Comparison of the Project and Alternatives

Table 7-2 ~~Comparison of the Project and Alternatives~~

1 INTRODUCTION

1.2 EIR REVIEW PROCESS

Required Contents

Section 15121(a) (Information Document) states that "~~an EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to~~

~~make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts.”~~

Section 15121(a) (Information Document) states that “An EIR is an informational document which will inform public agency decisionmakers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency.”

Section 3.2 PROJECT DESCRIPTION

Construction Methods

Access for construction vehicles to the channel bottom will likely be required to remove the existing piers, to build the new piers, and to construct the falsework for the new bridge. Access would likely be from the southeast side of the bridge and may require grading a road from the top of the bank down to the channel bottom. Some pruning of willows and other riparian species will be required for preparation of the access road; however, cutting will be kept to a minimum. Some trees will likely need to be cut and removed including California buckeye trees, black walnuts, and other trees on the path of the proposed access road. These trees will only be removed if absolutely necessary to construct the road. Willows and other plants that re-sprout will be cut at grade only if necessary, with no roots removed from the ground. The access road will be kept as narrow as possible to minimize disturbance to the banks and the riparian community that it supports. The access road would not need to be wider than 15-ft, (the approximate width of a large backhoe or excavator). To prevent soil, moved from the creation of the access road, from entering the creek; a fabric material may be laid down and angular gravel temporarily placed over it. This will provide the necessary traction for the construction vehicles, while separating the soil from the gravel. In order to isolate the work area during construction, the creek will be temporarily diverted into culverts. This will be done by digging a shallow trench, and placing the culvert into the trench. Upstream and downstream diversion dams will be constructed by pushing imported clean river run gravel into place such that it will not trap fish. To trap larger particles suspended in the water column, filter fabric will be placed on the face of the downstream diversion dam. Immediately following the completion of the diversion system, all fish trapped in the dewatered part of the stream will be collected by a qualified and permitted individual and moved downstream of the work area. Following fish capture and relocation, gravel will be placed over the culverts between the two diversion dams to create a flat work surface. The total approximate length of the diversion will be about 120 ft.

In order to filter out the sediment laden water from the isolated work area and the pier holes, a sediment stilling basin will be constructed. The basin will be created by excavating a large

shallow depression far enough from the channel to allow the sediment to filter out as the water seeps into the gravel bed of the creek. Excavation for the stilling basin will not require any vegetative removal or pruning. The excavated material will be stockpiled for later filling in on the basin following project completion. The water collected from the dewatered work area and from the holes drilled for the new piers will be pumped to the stilling basin.

Section 5B – CULTURAL RESOURCES

5B.2 SETTING

The proposed project is located in southern Sonoma County. The project area follows a portion of Watmaugh Road, ~~an arterial~~ a rural minor collector roadway connecting the City of Sonoma with Arnold Drive and Highway 121. The road runs generally east and west along the southeast side of the Sonoma Valley and crosses Sonoma Creek at the proposed project site.

5B.7 POTENTIAL IMPACTS AND MITIGATION MEASURES

Cultural Resource Impact No. 2: There are no known archaeological resources on the site, but the project could uncover such materials during construction.

***Cultural Resource Mitigation Measure C-2:** All improvement and grading plans and the specifications for the project shall have the following note printed on plan sheets:*

~~All improvement and grading plans shall have the following note printed on plan sheets:~~

"In the event that archaeological resources such as pottery, arrowheads, midden or culturally modified soil deposits are discovered at any time during grading, scraping or excavation within the property, all work shall be halted in the vicinity of the find and County PRMD Project Review staff shall be notified and a qualified archaeologist shall be contacted immediately to make an evaluation of the find and report to PRMD. PRMD staff may consult and/or notify the appropriate tribal representative from tribes known to PRMD to have interests in the area. Artifacts associated with prehistoric sites include humanly modified stone, shell, bone or other cultural materials such as charcoal, ash and burned rock indicative of food procurement or processing activities. Prehistoric domestic resources include hearths, firepits, or house floor depressions whereas typical mortuary resources are represented by human skeletal remains. Historic artifacts potentially include all by products of human land use greater than 50 years of age including trash pits older than fifty years of age. When contacted, a member of PRMD Project Review staff and the archaeologist shall visit the site to determine the extent of the resources and to develop and coordinate proper protection/mitigation measures required for the discovery. PRMD may refer the mitigation/protection plan to designated tribal representatives for review and comment. No work shall commence until a protection/mitigation plan is reviewed

and approved by PRMD - Project Review staff. Mitigations may include avoidance, removal, preservation and/or recordation in accordance with California law.

If human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and PRMD staff, County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and the appropriate provisions of the California Government Code and California Public Resources Code will be followed.

"In the event that archaeological resources such as pottery, arrowheads, midden or culturally modified soil deposits are discovered at any time during grading, scraping or excavation within the property, all work shall be halted in the vicinity of the find and County PRMD - Project Review staff shall be notified and a qualified archaeologist shall be contacted immediately to make an evaluation of the find and report to PRMD. PRMD staff may consult and/or notify the appropriate tribal representative from tribes known to PRMD to have interests in the area. Artifacts associated with prehistoric sites include humanly modified stone, shell, bone or other cultural materials such as charcoal, ash and burned rock indicative of food procurement or processing activities. Prehistoric domestic resources include hearths, firepits, or house floor depressions whereas typical mortuary resources are represented by human skeletal remains. Historic artifacts potentially include all by-products of human land use greater than 50 years of age including trash pits older than fifty years of age. When contacted, a member of PRMD Project Review staff and the archaeologist shall visit the site to determine the extent of the resources and to develop and coordinate proper protection/mitigation measures required for the discovery. PRMD may refer the mitigation/protection plan to designated tribal representatives for review and comment. No work shall commence until a protection/mitigation plan is reviewed and approved by PRMD - Project Review staff. Mitigations may include avoidance, removal, preservation and/or recordation in accordance with California law.

If human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and PRMD staff, County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and the appropriate provisions of the California Government Code and California Public Resources Code will be followed."

~~Mitigation Monitoring: Improvement and grading plans and specifications for the project shall be reviewed prior to advertising for bids for inclusion of the required notation plans.~~

SECTION 7 - ALTERNATIVES

7.6 DESCRIPTION OF ALTERNATIVES

~~Table 7.2~~ Table 7.1 Comparison of the Project and Alternatives

APPENDICES

The following will be added to the Draft EIR, and attached to this Response to Comments document as Appendix B and C.

Biotic Reports

Appendix B. Draft Biological Assessment, Watmaugh Road Bridge Over Sonoma Creek, March 23, 2000

Appendix C. Habitat Assessment for the California Freshwater Shrimp at Three Bridges on Sonoma Creek, January, 2000

APPENDIX A WRITTEN COMMENTS ON THE DRAFT EIR

LETTER A



EDMUND G. BROWN JR.
GOVERNOR

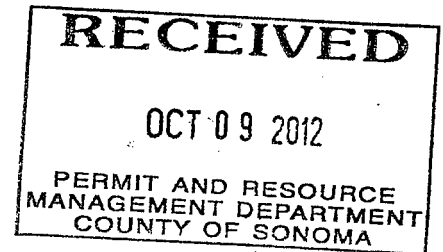
STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

Memorandum

Date: October 3, 2012
To: All Reviewing Agencies
From: Scott Morgan, Director
Re: SCH # 2012082037
Watnaugh Bridge Replacement



The State Clearinghouse has corrected some information regarding the above-mentioned project. Please be advised that the attached CDs were inadvertently omitted when the document was sent to your office for review on *October 1, 2012*. We apologize for any inconvenience this may have caused. All other project information remains the same.

cc: Richard Stabler
Sonoma County Dept. of Transportation & Public Works
2550 Ventura Ave
Santa Rosa, CA 95403

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #2012082037

Project Title: Walmough Bridge Replacement

Lead Agency: Sonoma County Dept. of Transportation and Public Works

Contact Person: Richard Stabler

Mailing Address: 2550 Ventura Ave.

Phone: 707-565-8352

City: Santa Rosa

Zip: 95403

County: Sonoma

Project Location: County: Watmough Rd & Sonoma Creek City/Nearest Community: City of Sonoma

Cross Streets: _____ Zip Code: 95476

Longitude/Latitude (degrees, minutes and seconds): 38° 15' 57" N / 122° 28' 01" W Total Acres: _____

Assessor's Parcel No.: N/A

Section: _____

Twp.: _____

Range: _____

Base: Diablo

Within 2 Miles: State Hwy #: 121

Waterways: Sonoma Creek

Airports: Sonoma Municipal

Railways: _____

Schools: _____

Document Type:

CEQA: ☐ NOP ☒ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Mit Neg Dec Other: _____

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☒ Final Document ☐ Other: _____

OCT 01 2012

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ General Plan Amendment ☐ Master Plan ☐ General Plan Element ☐ Planned Unit Development ☐ Community Plan ☐ Site Plan

☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)

STATE CLEARING HOUSE

☒ Redevelopment ☐ Coastal Permit ☐ Other: _____

Development Type:

☐ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
☐ Educational: _____
☐ Recreational: _____
☐ Water Facilities: Type _____ MGD

☒ Transportation: Type Bridge Replacement
☐ Mining: Mineral _____
☐ Power: Type _____ MW
☐ Waste Treatment: Type _____ MGD
☐ Hazardous Waste: Type _____
☐ Other: _____

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☐ Recreation/Parks ☐ Vegetation
☐ Agricultural Land ☐ Flood Plain/Flooding ☐ Schools/Universities ☐ Water Quality
☐ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☐ Water Supply/Groundwater
☒ Archeological/Historical ☐ Geologic/Seismic ☐ Sewer Capacity ☐ Wetland/Riparian
☐ Biological Resources ☐ Minerals ☐ Soil Erosion/Compaction/Grading ☐ Growth Inducement
☐ Coastal Zone ☐ Noise ☐ Solid Waste ☒ Land Use
☐ Drainage/Absorption ☐ Population/Housing Balance ☐ Toxic/Hazardous ☒ Cumulative Effects
☐ Economic/Jobs ☐ Public Services/Facilities ☐ Traffic/Circulation ☐ Other: _____

Present Land Use/Zoning/General Plan Designation:

Land Intensive Agriculture, Diverse Agriculture, Biotic Resource, F2 Floodplain, Scenic Resources, and Valley Oak Habitat

Project Description: (please use a separate page if necessary)

The Department of Transportation and Public Works proposes to replace the existing Landmarks status Warren pony truss bridge at Watmough Road over Sonoma Creek with a 32-ft wide concrete bridge. DTPW proposes to preserve the existing structural steel and include it as a detail on the new structure.

State Clearinghouse Contact:

(916) 445-0613

Project Sent to the following State Agencies

State Review Began: 10-1 2012

SCH COMPLIANCE 11-14 2012

Please note State Clearinghouse Number (SCH#) on all Comments

SCH#: 2012082037

Please forward late comments directly to the Lead Agency

AQMD/APCD 2/23

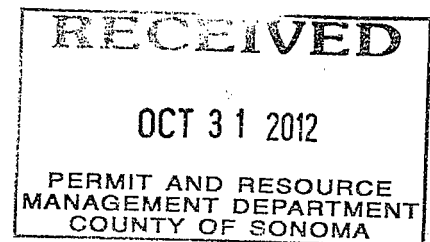
(Resources: 10/16)

☒ Resources
☐ Boating & Waterways
☐ Coastal Comm
☒ Colorado Rvr Bd
☒ Conservation
☒ Fish & Game # 3
☒ Delta Protection Comm
☒ Cal Fire
☒ Historic Preservation
☒ Parks & Rec
☐ Central Valley Flood Prot.
☐ Bay Cons & Dev Comm.
☒ DWR
☐ Cal EMA
☐ Resources, Recycling and Recovery
☒ Bus Transp Hous
☒ Aeronautics
☒ CHP
☒ Caltrans # 4
☐ Trans Planning
☐ Housing & Com Dev
☐ Food & Agriculture
☐ Public Health

State/Consumer Svcs
General Services
Cal EPA
ARB: Airport/Energy Projects
ARB: Transportation Projects
ARB: Major Industrial Projects
SWRCB: Div. Financial Assist.
SWRCB: Wtr Quality
SWRCB: Wtr Rights
Reg. WQCB # 2
Toxic Sub Ctrl-CTC
Yth/Adlt Corrections
Corrections
Independent Comm
Energy Commission
NAHC
Public Utilities Comm
State Lands Comm
Tahoe Rgl Plan Agency
Conservancy
Other: _____

LETTER B

KENNETH E. NILES
201 West Watmaugh Road
Sonoma, California 95476



October 26, 2012

Rich Stabler
Sonoma County Permit and Resource Development
2550 Ventura Ave
Santa Rosa, CA 95403

Re: DEIR – Watmaugh Road Bridge over Sonoma Creek

Dear Rich,

Enclosed are comments and suggestions which we believe have considerable validity and I would expect you would incorporate most of them into the final draft. Certainly we know you will use your own commentary and descriptions and that you will use good conscience and fair judgment in attempting to issue an unbiased report.

We realize that you probably received direction to expedite the drafting of the first report and didn't have a normal amount of time to do all of the research. Hopefully, you will now have sufficient time to evaluate the level of impacts about the proposal and the alternatives and adequately address some of the controversial items that have been presented by the public.

Thank you for your time in evaluating and addressing the concerns.

Sincerely,

Betsy Niles

Niles Family

Ken Niles

September 7, 2010

Watmaugh Road Bridge Retrofit

Bishwendu K. Paul, S. E. from Earthquake and Structures, Inc. has visited the bridge site and has provided a visual evaluation of the state of conditions of the bridge and its surrounding area.

The following conditions have been observed:

1. Spalling on the edges of girder and spalls with rusted rebar.
2. Fine horizontal cracks in west abutment.
3. Scour problem: Lack of maintenance of the bank might have contributed to the problem. Simple rip-rap protection could have eliminated or at least lessen the scour problem that now exists. However, hydraulic studies and appropriate mitigation program would prevent future scouring.

Structural deficiencies commonly known to exist in older bridges are:

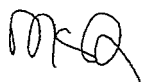
- Inadequate confinement – refer to non-ductile behavior of piers
- Absence of reinforcement in the top of footing – inadequate capacity to resist flexure thereby limiting the capacity of the piers subjected to seismic loads.
- Inadequate footing support capacity – is it the inadequate geotechnical capacity? A geotechnical investigation would determine the structural adequacy of the existing footing.

In steel bridges, component of bridge strengthening may include connections strengthening of the truss and replace lacings with plates for truss members. In lieu of strengthening the truss, consideration may be given to base isolation, i.e. provide isolation bearings instead of the support bearings.

B - 1

To the best of our knowledge, there is definitely a possibility for a retrofit as opposed to replacement with far less money compared to build a new bridge. Based on available information and best of our judgment, the Watmaugh Road Bridge can be retrofitted with an estimated cost of under 3 million dollars versus the reported over 5 million dollar range in current dollar value for a new bridge.

Respectfully submitted,



Bishwendu K. Paul,

Structural Engineer S3093 Exp 9/11

SATINDER P. SINGH, Ph. D., P. E.

Education

Ph.D., Structural Engineering, University of California at Berkeley, 1994

M.S., Structural Engineering, Wayne State University, Detroit, 1988

B.S., Civil Engineering, Punjab University, India, 1986

Registration

Civil Engineer: California C 56929

Relevant Experience

B - 2

- Iron Horse Trail Pedestrian Arch Bridge – Pleasant Hill, CA
- Performing the independent check of the 270 ft. span pedestrian bridge with steel arches supporting the composite deck with steel cables. The bridge was analyzed for service as well as seismic loads and evaluated the bridge for the linear as well as nonlinear response.
- Nonlinear Analysis and Construction Administration of Bay Bridge – San Francisco, CA
- Performed nonlinear time-history and pushover analysis of the pile groups and hinges for the long span skyway structure of the new East Span of the San Francisco –Oakland Bay Bridge. Provided construction administration for the segmental bridge including responses to RFIs, coordination with Caltrans, and review of submittals and various steel and segmental shop drawings.
- Design of New Bridge and Widening of Bridges, I-238 Widening – Castro Valley, CA
- Designed a new prestressed concrete bridge over Mission Boulevard for the I-238 widening. Provided independent design check for four reinforced and prestressed concrete bridges.
- Seismic Evaluation of Bridges – Valley Transportation Authority, CA
- Performed the seismic evaluation of four concrete bridges including Tasman Bridge, Route 87 Connector, Willow Street Viaduct, and Capitol Expressway.
- Structural Design – West Span San Francisco Bay Bridge, CA
- Provided construction support for the structural design of the complex temporary structures and high-tech devices for the San Francisco-Oakland Bay Bridge West Span. Retrofit cost \$160 million.
- Structural Construction – Sacramento River Bridge, Rio Vista, CA
- Provided construction administration support for the isolation bearings, dampers, and construction related issues for this lift span bridge currently under construction. Bridge retrofit cost \$5 million.

SATINDER P. SINGH, Ph. D., P. E. cont.

B - 2

- Constructability Review of Steel Bridges – Toll Bridges, Oakland, CA
- Performed the constructability review for the seismic retrofit of Richmond San Rafael Bridge. Recommended a redesign of the dampers and established the analysis and design criteria for the new design. Redesigned the YBI tunnel retrofit at the Bay Bridge to comply with the permits and perform major construction without significant lane closures during the day.
- PS & E Review – Toll Bridges, Oakland, CA
- Performed the PS&E review of San Francisco Oakland Bay, Richmond San Rafael, Carquinez, and San Diego Coronado Toll Bridges. Specifically redesigned the energy dissipation devices on Richmond San Rafael, thus preventing future delays during construction. Reviewed the structural constructability of these bridges. The construction cost varies from \$50 million to \$350 million for each bridge.
- Conceptual Retrofit Design - Colton Interchange, CA
- Studied and recommended a conceptual retrofit design of four 700 to 800 ft span bridges in Colton Interchange at Sacramento. The reinforced concrete bridges with typical span of approximately 70 ft span over a fault zone.
- Design of New Bridge - ART/BART, San Francisco International Airport, CA
- Designed the two-level Airport Rail Transit & BART Combined Guideway at San Francisco International Airport. The substructure of the 980 ft long double deck viaduct comprises of the cast-in-place partially prestressed concrete moment-resisting frames supported on pile foundations.
- Seismic Evaluation and Retrofit Design - Sacramento River Bridge, Rio Vista, CA
- Performed seismic evaluation of the Sacramento River Bridge at Rio Vista. The 2,500 ft long steel bridge has a 300 ft long lift span and towers that rise 173 ft above the roadway deck. Extensive evaluation of the bridge consisted of linear and nonlinear, static and dynamic analyses. Retrofit design used seismic isolation of the truss spans and passive energy dissipaters at the tower column base connections to control the uplift during the rocking response of towers.
- Independent Check - 5th & 6th Street Viaduct, Oakland, CA
- Performed the independent design check of the 5th and 6th Street Viaduct in Oakland. The viaduct consists of six structures built between the years 1953 and 1984. The seismic retrofit of the 2,820 ft long structure with overall width between 125 and 227 ft consists of column casings, soffit ties between separate structures, seat extenders, and partial realignment of girders at median.
- Caltrans Study - Earthquake Analysis and Response of Multi-Frame Bridges

Comments, Amendment, and Specific
Recommendations for the D.E.I.R.

Page 1 – 8 Item 1.4 Other Agencies

- B - 3 Agencies to be contacted for review need also to include the Sonoma Ecology Center and any Sonoma Creek Associations for preservation of Sonoma Creek.

Page 2 – 1 Summary of the proposed project

- B - 4 The summary of the proposed project needs to include the wishes of the majority of the Board of Supervisors which is to design the bridge so that the steel trusses appear meaningful and authentic; that they do not appear “tacked on”. The simulated photo B dwarfs the steel trusses and shows the guardrail extending to the entrance to the historic Wedekind House. The architects, engineers, County Design Review, and Board of Supervisors need to respect the history of the Bridge and trusses in approving the final design due to the widening of the bridge by 12 feet. The entrance guard rails could be recreated to appear to be similar to the authentic concrete rails. Can the guardrails be
- B - 5 minimized so that the trusses are more visible? What is the design review process and which jurisdictions approve the preliminary design? It should require Landmark Commission approval as well as the public. Because of the 12 foot widening, the EIR
- B - 6 suggests there may be a requirement to condemn private property. The project could be simplified if the project complied with Cal Trans acceptance of 4 foot shoulders, which would help in the visual concept without jeopardizing safety. It should also be noted that by the admission of County Staff, (per e-mail from Tom O’Kane) that Cal Trans has approved a 30 Foot width. This width could accomplish:
1. Help increase the appearance of authenticity of the trusses.
 2. Discourage speeders from crossing over the shoulder line.
 3. Possibly eliminate the taking of any private property
 4. Help preserve the biological resources including mature oak trees

Page 4.3 Biological Resources

- B - 7 According to fish biologists, the winter steelhead run can be jeopardized by construction work in the “non-flowing” water areas due to general disturbance of the area. The Sonoma Creek Steelhead run has been compromised by negative elements for many years to the extent that it is extremely fragile.
- The country of New Zealand is a well-known Rainbow Trout fishery today thanks to the Steelhead that spawned in Sonoma Creek. In 1883, a resident from Glen Ellen arranged to have steelhead eggs transported and placed in the rivers of New Zealand.

Any work done in the streambed must be evaluated first, then monitored by an expert fish biologist to help preserve the winter steelhead run and its history. If culverts are planned to allow the stream to flow, they must be removed during the winter steelhead run. Any disturbance in the streambed will have a significant impact on the fishery.

B - 7

“A search of records and literature in both New Zealand and America reveals rather conclusive evidence that the 1883 shipment of trout eggs to New Zealand originated from steelhead rainbow trout in Sonoma Creek, a tributary to San Francisco Bay.”

Frazer, Heitson, and Scott 1977

This historical information needs to be included in the draft. The public needs to be made aware of the potential damage to the fragile Sonoma Creek Fishery. Restoring piers is considerably less intrusive and damaging than removing and constructing new piers. The State Fish and Game and other biological resources need to be informed of other engineers' reports.

Page 4 - 5

35. States that there will be no increase in traffic levels.

B - 8

Watmaugh Road is a Rural Minor Collector as stated in the General Plan, not a speedway for vehicles to go to Napa and Vallejo. Vehicles will drive faster which will cause safety hazards. Unless measures are taken to slow eastbound traffic across the bridge, a safety hazard will be created to private driveways next to the bridge. What is proposed to prevent drivers from speeding faster than 30 mph?

The probable increase in speed needs to be addressed as the safety of residents living next to the bridge (as well as all drivers of oncoming vehicles) will be in jeopardy by the increase in speed that will naturally occur with the increase in width. (One of the successful methods to control speeders is to install speed reduction bumps.) Specific mitigating methods for speed reduction is critical for the safety of the public.

Page 4-17 Work Days & Hours proposed on Saturdays

B - 9

Residents living in the 4 historical homes next to the bridge are in their late 70's and 80's and deserve a weekend rest from the noise and deleterious effect it will have on the mental and physical health. It appalls us to believe the County Staff would allow this invasive work to take place at any time over the weekend. No work of any kind should be allowed on weekends.

A 7:00 AM beginning is disturbing and offensive to seniors in their 70's and 80's. Lorraine Wedekind was informed by a Cal Trans representative that private property owners have the right to expect reasonable working hours and days if they reside next to the project.

- B - 10 The simulated photo B does not accomplish the narrative of Mitigation Measure A.
- B - 11 Additionally, the photo that was shown to the Landmarks Commission and the general public does not show a rise of 4 feet and how it will affect the driveway and safety of the homes next to the bridge. The bridge height is already about 1 ½ to 2 feet higher than the roadway elevation. The driveway to the private homes would be extremely unsafe if the elevation was raised 4 feet.

- B - 12 This statement does not mention that the steel trusses shall be designed so that they appear as an integral section of the bridge. In the effort to make this bridge look “historic” the approach guard rails could be designed to reflect the original historic concrete rails and not the “New Period” lattice rails described in Aesthetics Mitigation Measure A-2

- B - 13 It is probable that the bridge does meet more than one of the criteria outlined by Tom Origer due to the significance of the Pony Steel Trusses and the 4 historic homes built adjacent to the bridge. The EIR should request a determination of the current criteria from one other expert in their field as one opinion is not conclusive.

- B - 14 Under “Mitigation Monitoring” it states “most of the project site has been disturbed by past construction”. No construction has occurred in the stream bed for the past 83 years. Since arrowheads, bowls, utensils & pestles have been discovered near the site in Sonoma Creek, what measures will be taken to “sift” through all the soil that will be removed? It is possible that valuable artifacts and Native American human remains could be discovered.

- B - 15 In accordance with Page 3.1 the FEMA Flood profile states that the 100-year storm water surface is established at elevation 45. During the flood of 2005 (which was considered a 100 year flood) at the crest of the water flowing under the bridge the height was about 4

feet below the bottom of the bridge. What is the rationale for increasing the height of the bridge an additional 4 feet to further take away from the natural historic resource and which is also costly to undertake unnecessary reconstruction of the roadway?. The current bridge deck is 49 feet; 4 feet higher than the FEMA requirements and 8 feet higher than the 100-year flood experienced.

The existing bridge can't flood as demonstrated by the 100 year flood of 2005! This is contrary to the statement that "the project would reduce flood hazards. The project could increase flood hazards and cannot be properly mitigated for contiguous property owners if raised 4 feet.

If an entity other than FEMA requires an increase of four feet in the height of the bridge, even though the current elevation complies with FEMA requirements, then a request for exemption should be made. Some of the justifications are the following:

1. When another 100 year flood occurs, three homes (2 historical) will be more subjected to serious flooding due to the fill that will be required causing a "damming" effect along about 200 feet of roadway. (In order to provide a smooth transition to the existing road elevation from the bridge would require at least 100 feet on either side of the bridge.)
2. Sight Reduction: Raising the bridge four feet will reduce driver's vertical line of sight. This is counter-productive to the purpose of building a new bridge i.e. **SAFETY**. Also, cars will naturally accelerate and speed on the down-hill side of the bridge.
3. Common Sense: During the 100 year flood in 2005, our property next to the bridge flooded due to the creek overflowing its banks and after wading in water on our property, I walked up a non-flooded road to the bridge. At the crest of the flood, I stood on the bridge, observed that the water was about 4 feet below the bottom of the bridge. It doesn't take an engineer to understand that once water overflows the banks, it is no longer restricted and can now escape over hundreds of acres of land.
4. Additional Cost: Unknown; but significant

Possible solutions: It may be possible to engage the Army Corp of Engineers to provide levees for the property owners next to the creek or design the bridge so it has beam depths similar to the existing bridge and agree with the basics of "Mother Nature."

The Wedekinds could not safely drive up a 4 foot ramp from their driveway and the Wedekind heirs should not be subjected to damaging or even losing their 120 year historic home due to the damming effect that may occur with the increase in elevation.

The statement in the first paragraph: "the bridge would be at a level that would be less significant and would generally avoid the significant impact to the historic resource associated with the proposed project."

B - 16

This is not accurate. The Landmarks Commission and Sonoma County League for Historic Preservation have adamantly stated that the historic resource would be destroyed by building a modern bridge next to it. This fact needs to be stated in the report.

B - 17

It is stated that the Alternative 2 would retain Local Landmark Status. But due to the significant altering of the immediate area, the scenic resource is destroyed which destroys its historic value, and the bridge could no longer qualify as a historic landmark.

B - 18

In the same paragraph it needs to address the delay in the project due to the need to acquire private property through appraisals, court delays, and ultimately eminent domain. Additionally there is no mention that the proposed project could require the removal of "Heritage" Cypress trees that are over 130 years old. (Same for Page 7-12 and Page 7-13). The Cypress trees that create the Watmaugh Road border were planted in the 1870's and after 130 years are still in good health. The diameter of some of the trees is now approximately 7 feet and circumference close to 50 feet. No mitigating measures can replace these heritage trees so careful surveying and road alignment is necessary to preserve them. None of the alternatives except alternative #3 can preserve them. This was not mentioned in the EIR, and needs to be.

This paragraph contradicts the expert opinions of engineers, who have evaluated the bridge. Please include all engineers opinions.

B - 19

1. This alternative most likely does not require the replacement of existing piers. (see attached Engineering report)
2. The restoration will not significantly alter the appearance of the historic bridge. Only the people in the creek would notice the alteration of the piers. Car drivers and passengers would not detect any changes.

November 6, 2012

VIA EMAIL AND USPS

Mr. Rich Stabler
Environmental Specialist
County of Sonoma
Permit and Resource Management and Development
2550 Ventura Avenue
Santa Rosa, CA 95403

RE: Watmaugh Bridge

Mr. Stabler,

As a 91+ year-old woman who has lived next to the Watmaugh Bridge for 70 years and will be most impacted by the construction of the new Watmaugh Bridge, I am once again writing to express my concerns and to try and obtain answers to my questions previously addressed.

1. Guard Rails

C - 1

Plans indicate that guard railings will extend 60 feet in each direction from the bridge abutments. That would put the guard railings across my driveway making it *impossible* to enter or exit my driveway.

2. Increased Height of Bridge

C - 2

Plans indicate that the bridge is to be raised 4 feet. Currently I have an incline to get in and out of my driveway, which inhibits good visuals in both directions. If the height of the bridge is increased anymore it will be *impossible* for me to exit my driveway.

3. Proposed Banking of Northern Lane

C - 3

Plans indicate that the northern lane of the proposed bridged will be banked. A guard railing on top of a roadway that is banked will not allow a visual for oncoming traffic making it *impossible* to exit my driveway.

4. Work Days and Hours of Construction

C - 4

Since there are houses immediately adjacent to the bridge in which people in their 70's, 80's and 90's live I deem construction days should limited to Monday through Friday with no weekends or holidays and working hours should be from 8:00 a.m. – 5:00 p.m. Starting before 8:00 a.m. and working past 5:00 p.m. is NOT acceptable, nor is working on holidays or weekends.

5. Access Road to the Creek Bed

C - 5

The current access road to the creek bed can only be obtained by crossing my driveway at 240 West Watmaugh Road. This will cause unacceptable disruption to me as well as anyone trying to come or go from my home. This includes not only family and visitors to my home, but also various service people, including but not limited to, persons who provide paper delivery, mail delivery, garbage pickup, UPS, Federal Express, etc. An even more vital concern is 24/7 access for emergency vehicles to get to my home or for me to get out in the case of an emergency.

Access Road to the Creek Bed continued

- C - 5 As there are houses in close proximity on both the east and west ends of the north side of the bridge, the access road should be built on the southwest side of the bridge, which is the farthest from any home or driveway.

6. Access Road Closure After Construction of the Bridge

- C - 6 When the bridge construction is completed the access road should be fenced and locked to discourage people from parking on the new paved shoulder and going down to the creek causing vandalism and graffiti as is currently painted on the bridge piers.

7. Staging Area Location

- C - 7 The staging area should be away from the immediate bridge area. In order to mitigate the noise that all who live near the bridge will have to endure, the staging area should be located on the west side of the bridge as far from our homes as possible.

8. Property Maintenance

- C - 8 What will be done to repair the entrance (the landscaping, fence and driveway) to my (as well as my neighbors) property after months of construction equipment has been repeatedly driven across it?

9. Drainage Issues

- C - 9 There are currently no drainage problems on my property. I want to be assured that with the building of a new bridge that no drainage problems will be created on my property.

10. Speed limit on West Watmaugh Road

- C - 10 A new, wider bridge will encourage higher speeds resulting in an ongoing safety issue for those of us who have to pull out of our driveways with limited site lines onto West Watmaugh Road. Traffic traveling east on West Watmaugh Road towards the bridge should be subject to a reduced speed limit of 30 miles per hour as they approach the bridge. In addition, Bott's Dots or "cross highway roughness" should be placed in the pavement to slow traffic. Solar enhanced speed advisory signs will be effective initially, but placing something in the road will be a continued reminder.

Please address my questions and concerns at your earliest convenience.

Sincerely,



Lorraine A. Wedekind

Law Office of Rose M. Zoia

50 Old Courthouse Square, Suite 401

Santa Rosa, California 95404

707.526.5894 . fax 267.381.6097

rzoia@shcglobal.net

November 12, 2012

via email

Rich Stabler
Sonoma County PRMD
2550 Ventura Avenue
Santa Rosa, CA 95403

RE: Watmaugh Road Bridge Replacement Project
DEIR Comment Letter

Dear Mr. Stabler:

Please accept this comment letter on the Draft Environmental Impact Report for the above-referenced project on behalf of Citizens for the Preservation of Sonoma Historic Bridges (CPSHB).

CEQA and the Historic Significance of Watmaugh Bridge

CEQA defines the "environment" to include "objects of historic or aesthetic significance."¹ The Legislature has declared it is the policy of the state to "[t]ake all action necessary to provide the people of this state with . . . enjoyment of aesthetic, . . . , scenic, and historic environmental qualities, . . ."²

D - 1

Consistent with that, the county affirmed that "[t]he establishment of a [Sonoma County historic bridges] thematic district and zoning of HD *will afford long term protection of these bridges and insure that modifications are not detrimental to the historic integrity.*" (Emphasis supplied.)³

¹ Pub. Resources Code § 21060.5.

² Pub. Resources Code § 21001, subd. (b).

³ County Resolution # 98-0046. Prior to that, in 1981, the County adopted Resolution # 69974 in which it rezoned the Watmaugh Road Bridge to add the Historic District Combining Zone (HD) to the Primary Floodplain Zone (F1) and to designate the site as Sonoma County Historic Site #103. The Bridge also is listed as an historic

D - 1

CEQA states that a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.”⁴ Because of the import of historical resources to the people of the state, the ever-dwindling cache of such resources, and the fact that, once a resource is destroyed, it is gone forever, an EIR is automatically required for any project that may cause a substantial adverse change in the significance of an historical resource.

Inherent in this requirement is the need for the EIR to analyze feasible and environmentally superior alternatives to the project as proposed. The requirement to set forth project alternatives within an EIR is crucial to CEQA’s substantive mandate that significant environmental damage be substantially lessened or avoided where feasible.⁵

The EIR Must Include an Environmentally Superior Alternative

D - 2

“Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project

resource in the Environmental Impact Report (EIR) for the Sonoma County General Plan 2020 and as a bridge with national or local significance in Sonoma County Department of Transportation and Public Works’ (DTPW) *The Bridges of Sonoma County 2009 Strategic Planning* document. In the larger context, the National Trust for Historic Preservation recently selected the Town of Sonoma as one of its 2011 Dozen Distinctive Destinations. There is a conspicuous link between efforts to preserve historic treasures such as the Watmaugh Bridge and honorable distinctions such as the one bestowed by the National Government.

⁴ Pub. Resources Code § 21084.1.

⁵ Pub. Resources Code §§ 21002, 21100, subd. (b)(4); CEQA Guidelines (14 Cal. Code Regs.), §§ 15002, subd. (a)(3), 15021, subd. (a)(2), 15126, subd. (f), 15126.6.)

objectives, or would be more costly.” (Guidelines, § 15126.6, subd. (b).)⁶

The substantive mandate of CEQA requires the lead agency to not approve the project as proposed if there are feasible, environmentally superior alternatives that meet the project objectives to some degree.⁷

D - 2 Here, a rehabilitation/retrofit alternative would be feasible, environmentally superior, and would meet the project objectives, at least to some degree.⁸ The DEIR is defective in its failure to include such an alternative. It concludes that the proposed project is the environmentally superior project.⁹ However, CEQA requires the EIR to discuss an environmentally superior *alternative* to project, other than the requisite no-project alternative.¹⁰ The project itself cannot be the environmentally superior alternative. “An alternative to a project is just that – a description of *another* activity or project that responds to the major environmental issues identified during the planning process.”¹¹

Other Inadequacies of the DEIR

D - 3 The DEIR is inadequate in its complete failure to include biological resources, hydrology/water quality, noise, air quality, geology/soils, hazards and

⁶ *Watsonville Pilots Ass'n v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1086-87.

⁷ See Pub. Resources Code § 21002.

⁸ DEIR, p.7-1: 1) Eliminate structural deficiencies and increase load limits, 2) Meet current seismic standards, 3) Provide standard shoulder width that would accommodate large loads and minimize frequent collisions with guard railing, 4) Provide improved road alignments and sight distance, and 5) Eliminate the risk of failure due to non-redundant structural components of the bridge that could result in failure. Providing new bike/pedestrian facilities is included in the project objectives.

⁹ DEIR, p.7-14.

¹⁰ Guidelines, § 15126.6, subd. (e)(2) (“If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.”)

¹¹ *Friends of the Old Trees v. Department of Forestry and Fire Protection* (1997) 52 Cal.App.4th 1383, 1405.

D - 3 hazardous materials, and transportation/traffic impacts analyses.¹² The DEIR includes impacts sections only for aesthetics, cultural resources, and land use and planning, growth-inducing, and cumulative impacts. (This listing is iterated regardless of the adequacy of the analyses.)

D - 4 An EIR must identify and discuss a project's significant environmental effects. For example, the project will cause significant impacts to biological resources. The fact that the Initial Study discusses mitigation measures does not, as a matter of law, excuse the EIR from analyzing and discussing impacts to biological resources. The same applies to hydrology/water quality, noise, air quality, geology/soils, hazards and hazardous materials, and transportation/traffic impacts. The Initial Study does not substitute for the DEIR.

D - 5 The DEIR here acts as a focused EIR. However, CEQA limits the use of a focused EIR to certain situations, none of which apply here. A focused EIR may be prepared if a project meets all of the following requirements: it consists solely of the installation of pollution control equipment required by a rule or regulation or that reduces greenhouse gases required by a rule or regulation if the agency certified an EIR on the rule or regulation which included an assessment of growth inducing impacts and cumulative impacts of, and alternatives to, the project and if that environmental review was completed within five years of certification of the focused environmental impact report, and a subsequent EIR is not required.¹³

The DEIR must be re-done to include analyses of all impact areas and recirculated to the public and consulting agencies.¹⁴

D - 6 Other substantive inadequacies of the DEIR are set forth in, among other places, the comment letter from CPSHB dated November 13, 2012.

¹² See, e.g., CEQA Appendix G (Initial Study), copy attached hereto.

¹³ Pub. Resources Code § 21159.1.

¹⁴ Guidelines, § 15088.5, subd. (a)(4) (Recirculation required when "[t]he draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.")

Inadequacies Related to Process¹⁵

EIRs serve a number of varied functions. They

must include specific information about how projects may adversely affect the environment; they involve the public in environmental decisionmaking; they require decisionmakers to reveal their “environmental and economic values” so that the public can remember these values “come election day”; they facilitate interagency consultation; and they generate proposals for project modification to be effected through the adoption of alternatives or mitigation measures.¹⁶

D - 7

One of the major purposes of an EIR is to provide both the decisionmakers and the public in general with detailed information about all aspects of the proposed project and its interaction with the environment.¹⁷ The EIR process also mandates and encourages public participation. “The EIR is to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.”¹⁸

These underlying purposes of CEQA have not been met with this EIR. The NOP comment period was 30 days, ending on September 6, 2012. The DEIR was quickly and, as discussed above, incompletely and inadequately prepared within three (3) weeks. The environmental documentation and project approval are being fast-tracked, with the hearing on the DEIR on October 23, 2012, within a month of its availability, and the hearing on the FEIR and project planned for December 4, 2012. This leaves just two and one-half weeks between the end of the DEIR comment period and the hearing on the FEIR. Since the FEIR will need to be available to the Board of Supervisors and the public prior to the hearing, that leaves just days to complete the FEIR after the end of the comment period. The entire EIR process will extend less than three (3) months, much less than the norm for EIRs.

¹⁵ Problems with the process to this point have been vetted in my letters dated July 23, July 30, and August 1, 2012, copies attached hereto and incorporated herein.

¹⁶ Remy, Thomas, Moose & Manley, *Guide to CEQA* (10th ed., 1999), p. 35.

¹⁷ Pub. Resources Code § 21061.

¹⁸ Guidelines, § 15003, subd. (d).

In addition, in its comment letter on the Notice of Preparation dated August 7, 2012, California Department of Fish and Game (DFG) requested

D - 8

a complete Biological Assessment (including but not limited to type, quantity and locations) of the habitats, flora and fauna within and adjacent to the project area, including endangered, threatened, and locally unique species and sensitive habitats. The assessment should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the Project. Rare, threatened and endangered species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, Section 15380). DFG recommended survey and monitoring protocols and guidelines are available at <http://www.dfg.ca.gov/wildlife/species/surveymonitor.html>.

D - 9

Caltrans requested that the County prepare a Traffic Impact Study (TIS) and coordinate such with Caltrans. The state agency requested that certain detailed information be included in the TIS. (Both DFG's and Caltrans' letters are attached hereto.)

Neither of these were done. The public and decisionmakers have not been provided with studies on these potentially significant impacts of the project.¹⁹ Once these required studies are prepared, the DEIR, along with the studies, will need to be recirculated.²⁰

Thank you for your close attention to this matter.

Very truly yours,



Rose M. Zoia

¹⁹ Appendices to the DEIR include the NOP, responses to the NOP, the Initial Study, Caltrans' Bridge Inspection Report dated April 19, 2012, a letter from Caltrans to a county engineer dated February 29, 2000, a Technical Memorandum from DTPW to PRMD regarding funding sources dated April 23, 2012, cultural/historic reports, a noise report, PRMD Visual Assessment Guidelines, site photographs, and Federal Highway Administration (FHWA) Bridge Preservation Guidelines.

²⁰ Pub. Resources Code, § 21092.1; Guidelines, § 15088.5.

Encl.

cc: Citizens for the Preservation of Sonoma Historic Bridges
Sonoma County Board of Supervisors
County Counsel

Appendix G

Environmental Checklist Form

1.

Project title:
2.

Lead agency name and address:
3.

Contact person and phone number:
4.

Project location:
5.

Project sponsor's name and address:
6.

General plan designation:

7.

Zoning:
8.

Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)
9.

Surrounding land uses and setting: Briefly describe the project's surroundings:
10.

Other public agencies whose approval is required (e.g., permits, financing approval, or

participation agreement.)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.



I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name

For

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR

or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

- a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
- a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance

SAMPLE QUESTION

Issues:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</p>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>IV. BIOLOGICAL RESOURCES -- Would the project:</p>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
filling, hydrological interruption, or other means?				
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VIII. HYDROLOGY AND WATER QUALITY -				
- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
river, in a manner which would result in substantial erosion or siltation on- or off-site?				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XI. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XIV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: Authority cited: Sections 21083 and 21087, Public Resources Code. Reference: Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.3, 21093, 21094, 21151, Public Resources Code; Sundstrom v. County of Mendocino, 202 Cal.App.3d 296 (1988); Leonoff v. Monterey Board of Supervisors, 222 Cal.App.3d 1337 (1990).

Law Office of Rose M. Zoia

50 Old Courthouse Square, Suite 401

Santa Rosa, California 95404

707.526.5894 . fax 267.381.6097

rzoia@sbcglobal.net

July 23, 2012

Chairwoman Shirlee Zane and Supervisors
Sonoma County Board of Supervisors
575 Administration Drive, Room 100 A
Santa Rosa, CA 95403

RE: Watmaugh Road Bridge Replacement Project
Department of Transportation and Public Works
July 31, 2012 Meeting: Procedure

Dear Chairwoman Zane and Supervisors:

I represent the Citizens for the Preservation of Sonoma Historic Bridges (CPSHB) with respect to the Watmaugh Road Bridge Replacement Project proposed by the Department of Transportation and Public Works (DTPW). CPSHB questions the nature of the administrative review process for this bridge replacement project.

Per the notice of public hearing, DTPW requests authorization for a design contract to prepare the design plans and specifications for the proposed" bridge replacement project. This is premature given the pending Sonoma County Landmarks Commission recommendation to the Board on the design of the proposed project.

The Historic Significance of Watmaugh Bridge

In 1981, the County of Sonoma adopted Resolution # 69974 in which it rezoned the Watmaugh Road Bridge to add the Historic District Combining Zone (HD) to the Primary Floodplain Zone (F1) and to designate the site as Sonoma County Historic Site #103. (http://prmd.sonoma-county.org/historic_landmark.aspx?sid=1015&id=103.)

In Resolution 98-0046 (copy attached), the County reaffirmed that "[t]he establishment of a [Sonoma County historic bridges] thematic district and zoning

of HD *will afford long term protection* of these bridges and *insure that modifications are not detrimental to the historic integrity.*" (Emphasis supplied.)

The Bridge also is listed as an historic resource in the Environmental Impact Report (EIR) for the Sonoma County General Plan 2020 and as a bridge with national or local significance in DTPW's *The Bridges of Sonoma County 2009 Strategic Planning* document.

In the larger context, the National Trust for Historic Preservation recently selected the Town of Sonoma as one of its 2011 Dozen Distinctive Destinations. (<http://www.preservationnation.org/who-we-are/press-center/press-releases/2011/sonoma.html>) The article mentions Sonoma's establishment in the early 19th century and "winding country roads and family-owned vineyards" as the focus of its historic charm. "Sonoma offers all the perks of being in the heart of wine country, with the added benefit of a laid back vibe that complements the award-winning wine and food." (*Ibid.*) There is an obvious link between efforts to preserve historic treasures such as the Watmaugh Bridge and honorable distinctions such as the one bestowed by the National Government.

County and State Procedure for Removal of Historic Bridges

As stated, the now 87-year old bridge was designated historic in 1981. In Resolution No. 98-0046, the County designated 10 additional Sonoma County bridges as historic and mandated the "Procedure for Landmarks Commission Review of Proposed Work on Historic Bridges." (Exhibit A to the attached resolution.)

Those procedures state that, after the Commission reviews information on the proposed project it is to make a recommendation. The Commission could, for example, recommend that DTPW return with a plan that honors the resolution, i.e., a plan that repairs or reinforces the existing bridge and maintains its historic integrity. The resolution specifically states that the historic district and zoning was established to protect the district and individual bridges in the long term and to insure that any modifications don't affect the historic integrity of either the district and individual bridges.

Once the Commission issues its recommendation, DTPW decides whether or not it wishes to follow the recommendation. If it does not wish to follow the recommendation, DTPW must prepare a response to the Commission. Then,

only if the Commission and DTPW cannot resolve the differences, DTPW submits both the recommendation and its response to the Board of Supervisors for its decision.

The Current Process

Here, the notice of public meeting before the Board of Supervisors describes a request by DTPW "to authorize the design contract to prepare the design plans and specifications for the proposed" bridge replacement project. However, the Landmarks Commission process as prescribed in the resolution has not concluded. Even if it had come to resolution, the Board meeting would be to hear the Commission's recommendation on the proposed project. As framed in the July 24, 2012, notice of public meeting of the Landmarks Commission, the Commission will "consider a recommendation to the Board of Supervisors on the design of the proposed project. . . ." The Commission may not recommend action on a bridge replacement project.

CPSHB requests that the County withdraw its notice of public hearing before the Board of Supervisors and proceed in accordance with Resolution No. 98-0046.

Thank you for your close attention to this matter.

Very truly yours,



Rose M. Zoia

cc: Citizens for the Preservation of Sonoma Historic Bridges
Sonoma County Landmarks Commission
County Counsel
PRMD

ATTACHMENT D-2.1

THE WITHIN INSTRUMENT IS A
CORRECT COPY OF THE ORIGINAL
ON FILE IN THIS OFFICE.

Resolution Number 98-0046

ATTEST: JAN 08 1998

County of Sonoma
Santa Rosa, California

EEVE T. LEWIS
County Clerk & ex-officio Clerk of the Board of
Supervisors of the State of California, in & for
the County of Sonoma.
By [Signature] Deputy

January 6, 1998

ZCE 97-0031 Kathi Jacobs

RESOLUTION OF THE BOARD OF SUPERVISORS, COUNTY OF
SONOMA, STATE OF CALIFORNIA, FINDING THAT THE PROJECT AS
REQUESTED BY SONOMA COUNTY LANDMARKS COMMISSION IS
EXEMPT FROM CEQA.

WHEREAS, the applicant, Sonoma County Landmarks Commission, filed an application with the Sonoma County Permit and Resource Management Department to designate 10 bridges as County Landmarks and rezone them to the HD district, establishing a Sonoma County Historic Bridges Thematic District. The bridges are:

1. Arnold Drive (Bridge # 20C-213) crosses Sonoma Creek at the entrance to Sonoma Developmental Center in Eldridge, on Arnold Drive (1st District).
2. Big Sulphur Creek (#20C-05) crosses Sulphur Creek on Geysers Road. (4th District)
3. Chalk Hill (#20C-242) crosses Maacama Creek on Chalk Hill Road. (4th District).
4. Clark's Crossing (#20C-141) crosses Wheatfield fork of the Gualala River on Annapolis Road. (5th District) at the intersection with Stewart's Point/Skaggs Springs Road. (5th District).
5. Guerneville (#20C-91) crosses Russian River on Highway 116 at River Road. (5th District)
6. Hacienda (#20C-37) crosses Russian River on River Road. (5th District)
7. Haupt Creek (#20C-224) crosses Haupt Creek on Stewarts Point/Skaggs Springs Road. (5th District)
8. Lambert (#20C-248) crosses Dry Creek on Lambert Bridge Road. (4th District)
9. North Fork (#10C-46) crosses the north fork of the Gualala River at the Mendocino County line on Gualala Road. (5th District)
10. Wohler (#20C-155) crosses the Russian River on Wohler Road at the intersection with Eastside Road. (5th District)

WHEREAS, Section 15305 of the California Code of Regulations provides that minor alterations in land use limitations which do not result in any changes in land use or density are exempt from CEQA; and

WHEREAS, at its regularly scheduled meeting on December 4, 1997, the Planning Commission, with a 5-0-0 vote, recommended that the Board of Supervisors approve the zone change; and

WHEREAS, in accordance with the provisions of law, the Board of Supervisors held a public hearing on January 6, 1998, at which time all interested persons were given an opportunity to be heard; and

WHEREAS, the Board of Supervisors does make the following findings:

ATTACHMENT 3

1. The bridges qualify individually and as a thematic district for local historic designation based on criteria adopted by the Landmarks Commission:
 - a) the trusses "are associated with events that have made a significant contribution to the broad pattern of our history" (development of a transportation system) and
 - b) "they embody the distinctive characteristics of a type, period, method of construction, or possess high artistic values."
2. The establishment of a thematic district and zoning of HD will afford long term protection of these bridges and insure that modifications are not detrimental to the historic integrity.

WHEREAS, the procedures attached as Exhibit A outline the process for reviewing changes to the historic bridges.

NOW, THEREFORE BE IT RESOLVED that the project described in this resolution is exempt from the requirements of the California Environmental Quality Act by virtue of Section 15305 of CEQA Guidelines in that the project is the addition of the Historic District to the existing zoning, and the Clerk is hereby directed to post a Notice of Exemption in accordance with Section 21152 of the Public Resources Code and Section 15062 of the California Administrative Code.

BE IT FURTHER RESOLVED that the Board of Supervisors designates the Clerk of the Board as the custodian of the documents and other material which constitute the record of proceedings upon which the decision herein is based. These documents may be found at the office of the Clerk of the Board, 575 Administration Drive, Room 100A, Santa Rosa, California 95403.

SUPERVISORS VOTE:

Cale: Harberson: Smith: Reilly: Kelley:

Ayes: 5 Noes: Absent: Abstain:

SO ORDERED.

SONOMA COUNTY
LANDMARKS COMMISSION

2550 Vennura Avenue ■ Santa Rosa, California 95403 ■ (707) 527-1900 ■ FAX (707) 527-1103

PROCEDURE FOR LANDMARKS COMMISSION REVIEW OF PROPOSED WORK ON HISTORIC BRIDGES

A. Application

This procedure applies to maintenance or repairs to any County-maintained bridge that has been identified by the Landmarks Commission as a candidate for HD (Historic District) zoning. The following bridges are included:

1. Arnold Drive at Eldridge (Bridge # 20C-213)
2. Big Sulphur Creek, Geysers Road (#20C-05)
3. Chalk Hill (Maacama), Chalk Hill Road (#20C-242)
4. Clark's Crossing, Annapolis Road (#20C-141)
5. Guerneville, Highway 116 & River Road (#20C-91)
6. Hacienda, River Road (#20C-37)
7. Haupt Creek, Stewart's Point/Skaggs Springs Road (#20C-224)
8. Lambert, Lambert Bridge Road (#20C-248)
9. North Fork, Gualala Road (#10C-46)
10. Wohler, Wohler Road (#20C-155)

Two other bridges are already zoned HD by the County, and the procedures would also apply to them:

11. Calabazas, O'Donnell Lane (#20C-324)
12. Watmaugh, Watmaugh Road (#20C-017)

B. Procedure

When review by the Landmarks Commission is required, that review will be initiated by providing a description of the work to the Permit and Resource Management Department staff liaison to the Commission, who will schedule the item on the Commission's agenda. If the proposed work is undergoing environmental review by Permit and Resource Management Department, the Environmental Specialist who is working on the Initial Study will submit the information to the staff liaison. If the proposed work is exempt from CEQA, or if the environmental document is being prepared by others, the Department of Transportation and Public Works (TPW) will submit the information to the staff liaison.

The Commission will review the information presented by staff and make a recommendation. If TPW cannot or does not wish to follow the recommendation, they will prepare a response to the Commission. If TPW and the Commission cannot resolve the difference, TPW will submit both the recommendation and its response to the Board of Supervisors for a decision.

C. Maintenance Activities for HD bridges Exempt from Commission Review

TPW may perform the following routine maintenance on bridges without review by the Landmarks Commission:

1. Approach pavement repair - patching potholes, repaving, shoulder work
2. Approach guard rail repair/replacement - includes roadside guardrail up to, but not on, the bridge
3. Bridge guard rail replacement, when the new guard rail is of the same design and materials as the existing
4. Roadway striping - painting centerline, edge line, or other pavement markings
5. Graffiti removal
6. Sign installation and maintenance
7. Tree trimming - as needed for vehicle clearance and sight distance or bridge maintenance
8. Deck cleaning
9. Superstructure cleaning
10. Bearing cleaning and repair
11. Substructure concrete repair, except on concrete or masonry bridges
12. Drift removal - removing flood debris that has become caught on the bridge
13. Erosion and scour protection - placing rip rap on the bank or around the piers
14. Streambed modification - erosion protection, removal of gravel bars
15. Reconstruction of footings, except for the brick, concrete or masonry bridges

D. Maintenance Activities for HD bridges Requiring Commission Review

The following maintenance activities will be submitted to the Landmarks Commission for review and recommendations.

1. Deck repair, except replacement in kind
2. Bridge rail replacement, when the proposed bridges rail is of a different design or material than existing
3. Superstructure painting
4. Superstructure repair, when the proposed repair will introduce new members or materials having a different appearance than the original superstructure
5. Seismic retrofit
6. Wingwall repair and maintenance, except when repair is to the footing
7. Lighting
8. Pedestrian walkways attached to bridge
9. Substructure and footings repair on brick, concrete or masonry bridges

E. Bridge Removal

TPW will submit for Commission review any proposal to remove any County-maintained bridge that is 50 years old or older. An initial study would always be required and alternatives considered, such as repair or reinforcement of the existing bridge, relocation to another site, construction of a replacement bridge in a different location, or possible retention as a pedestrian bridge or feature on an open space area.

F. Emergency Repairs

In case of an emergency, TPW may make any repairs necessary to avoid a road closure, protect life, or prevent substantial property damage without prior notification of the Commission. TPW will notify the Commission within 30 days of the emergency.

Law Office of Rose M. Zoia

50 Old Courthouse Square, Suite 401

Santa Rosa, California 95404

707.526.5894 . fax 267.381.6097

rzoia@sbcglobal.net

July 30, 2012

Chairwoman Shirlee Zane and Supervisors
Sonoma County Board of Supervisors
575 Administration Drive, Room 100 A
Santa Rosa, CA 95403

RE: Watmaugh Road Bridge Replacement Project
Department of Transportation and Public Works
July 31, 2012 Hearing

Dear Chairwoman Zane and Supervisors:

On behalf of Citizens for the Preservation of Sonoma Historic Bridges (CPSHB), please accept these comments on the above-referenced matter.

CPSHB agrees with the Landmarks Commission's thoroughly-vetted recommendation of denial of the proposed demolition and replacement of the historic Watmaugh Road Bridge. For this reason among others, the request to award a design contract for a proposed replacement project should be denied.

The historic significance of the Watmaugh Road Bridge was outlined in my letter to this Board dated July 24, 2012, a copy of which is attached hereto. That letter also outlined the County procedure for the removal of historic bridges as set forth in Resolution No. 98-0046. The first part of the procedure has occurred: the Landmarks Commission issued its studied recommendations on the project.

However, the next part of the process – DTPW must decide whether or not it wishes to follow the recommendations – has not taken place. The process then provides that should DTPW not wish to follow the recommendations, it must prepare a response to the Commission. Then, only if the Commission and DTPW cannot resolve the differences, DTPW submits both the recommendation and its response to the Board of Supervisors for its decision. The latter steps have not occurred, as mandated by Resolution No. 98-0046. Thus, for this reason as well as others outlined below, it is premature for this Board to approve the award of the engineering design contract for the replacement project.

In addition to the lack of proper procedure, award of the design contract is premature because 1) it may constitute a CEQA project in and of itself, 2) it may constitute pre-commitment to approve the project, and 3) this Board has not been provided with sufficient information on the proposed project to make an informed decision.

Without having had the opportunity to review the proposed contract and thus raising the issue in this context, the approval of the contract may constitute an approval of a CEQA project. If, viewed in light of all the surrounding circumstances, a preliminary public-private agreement for exploration of a proposed project commits the public agency as a practical matter to the project, it in and of itself is a project regardless of the insertion of a CEQA compliance condition. CEQA provides that an agency may not delay EIR preparation by making its final approval of a project contingent on subsequent CEQA compliance, while otherwise agreeing to go forward with the project.¹

Whether or not the proposed contract is a CEQA project, approval of the contract may constitute an improper pre-commitment to approve the proposed replacement project. Pre-commitment to a particular course is not permitted by CEQA because

A fundamental purpose of an EIR is to provide decision makers with information they can use in deciding whether to approve a proposed project, *not to inform them of the environmental effects of projects that they have already approved*. If post-approval environmental review were allowed, EIR's would likely become nothing more than post hoc rationalizations to support action already taken.²

Likewise, this Board has not been provided with sufficient information on the proposed project to make an informed decision. "A basic tenet of CEQA is that an environmental analysis 'should be prepared as early as feasible in the planning process to enable environmental considerations to *influence project program and design* and yet late enough to provide meaningful information for environmental assessment.'"³

¹ *Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116, 132.

² *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 394 [emphasis supplied].

³ *Id.* at 395 quoting CEQA Guidelines (14 Cal. Code Regs.), § 15004, subd. (b) [emphasis supplied].

As the Landmarks Commission advised in its memo dated July 25, 2012,

The overarching premise which guided the review of this project was that preservation of the historic landmark should be the primary goal of the [County] and should be the avenue pursued *unless shown to be infeasible*.

* * *

It is the opinion of the Landmarks Commission that the retrofit option *requires further study* to fully appreciate the impact that such a modification would have on the historic bridge. *A detailed cost comparison of the proposed project and the retrofit is suggested, as is a discussion of the various retrofit strategies available and clear illustrations of the resulting visual effect of each method discussed.*

* * *

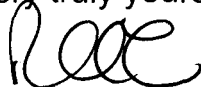
Finally, the Landmarks Commission feels that the process for review of projects involving the County's historic bridges could be improved and that *more detailed analysis of all alternatives should be provided prior to selecting a preferred project and design team.*

[Emphasis supplied.]

In conclusion, CPSHB respectfully requests this Board deny the request to award a design contract for the proposed replacement project.

Thank you for your close attention to this matter.

Very truly yours,



Rose M. Zoia

cc: CPSHB
Sonoma County Landmarks Commission
Sonoma County Counsel
Tom O'Kane, staff

Law Office of Rose M. Zoia

50 Old Courthouse Square, Suite 401

Santa Rosa, California 95404

707.526.5894 . fax 267.381.6097

rzoia@sbcglobal.net

August 1, 2012

via email

Chairwoman Shirlee Zane and Supervisors
Sonoma County Board of Supervisors
575 Administration Drive, Room 100 A
Santa Rosa, CA 95403

RE: Watmaugh Road Bridge Replacement Project
Department of Transportation and Public Works
July 31, 2012 Hearing

Dear Chairwoman Zane and Supervisors:

This letter is submitted on behalf of Citizens for the Preservation of Sonoma Historic Bridges (CPSHB).

Yesterday, the Board of Supervisors voted to approve staff's recommended action to "award engineering design contract to Moffat & Nichol for the replacement of the Watmaugh Road Bridge totaling \$500,009 with a term ending December 31, 2015."

The proposed contract in existence at that time defines the project and outlines in detail the consultant's scope of services in Exhibit A, copy attached hereto. The introduction states that "[t]his project will replace the existing structurally deficient two-lane Watmaugh Road Bridge. . . ." and elsewhere in the document it states that ". . . the bridge will be demolished. . . ." (Exh. A, pp. 1, 7, see *also* 9 ("Bridge Design. Conduct structural analysis and prepare unchecked structural drawings for a two-span, cast-in-place posttensioned concrete box girder bridge approximately 185 feet in length. Include provisions to salvage existing truss members and attach to new structure as aesthetic enhancement.")) The scope of services describes detailed work to be done only for the specific replacement project. (*E.g.*, Exh. A, pp. 2, 3, 8-10) In no uncertain terms, the document assumes the CEQA document will be a Mitigated Negative Declaration (MND). (Exh. A, p. 7, 10.)

Based on the discussion and deliberations yesterday, it appears that the Board was not privy to this proposed contract prior to or during the hearing. Also based on discussion and deliberations, the terms of this proposed contract are not in alignment with the wishes of the Board or certain Board members. It became clear that the Board or certain Board members wished or assumed the contract will cover designs for other

than replacement, i.e., rehabilitation/retrofit designs, and that the CEQA document will be an Environmental Impact Report (EIR) rather than an MND.

In that case, the final contract cannot be in the form of the attached proposed contract and, in that case, the Board approved something that does not yet exist, i.e., it approved a contract without it or the public having had review opportunity. Again, the Board was not been provided with sufficient information to make an informed decision and its approval of an unknown contract was improper.¹

CPSHB respectfully requests this Board take action to correct its decision made yesterday. CPSHB requests the Board set aside its approval and notice a new public hearing to consider a request by DTPW to authorize an accurately written design contract reflecting, among other things, a scope of services including alternative rehabilitation/retrofit designs and cost analyses and the preparation of an EIR.

Thank you for your close attention to this matter.

Very truly yours,



Rose M. Zoia

Encl.

cc: CPSHB
ERC
Nancy Simpson, Chair, Sonoma County Landmarks Commission
David Hurst, County Counsel
Robert Pittman, County Counsel
Jennifer Barrett, staff
Tom O'Kane, staff

¹ See *G.L. Mezzetta, Inc. v. City of American Canyon* (2000) 78 Cal App.4th 1087, 1092-1093 (municipal contracts must be in writing, be approved by the decision-making body, approved as to form by the city attorney, and signed by either the mayor or the city manager. "Restrictions on a municipality's power to contract should be strictly construed because such restrictions are designed to protect the public, not those who contract with the municipality." See also *Martin v. Superior Court* (1991) 234 Cal.App.3d 1765, 1768 (Powers of a general law city are strictly construed, so that "any fair, reasonable doubt concerning the exercise of a power is resolved against the corporation." [Cite.]")

Standard Professional Services Agreement (“PSA”)
Revision F – April 2012

AGREEMENT FOR PROFESSIONAL SERVICES

This agreement ("Agreement"), dated as of _____, 20__ (“Effective Date”) is by and between the County of Sonoma, a political subdivision of the State of California (hereinafter "County"), and Moffatt & Nichol, a California Corporation (hereinafter "Consultant").

R E C I T A L S

WHEREAS, Consultant represents that it is a duly qualified , experienced in the preliminary engineering work for bridge design, preparation of environmental documentation, final plans, specifications, and estimate and related services; and

WHEREAS, in the judgment of the Board of Supervisors, it is necessary and desirable to employ the services of Consultant for engineering services for the Watmaugh Road Bridge (C08001).

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual covenants contained herein, the parties hereto agree as follows:

A G R E E M E N T

I. Scope of Services.

1.1 Consultant's Specified Services. Consultant shall perform the services described in Exhibit “A,” attached hereto and incorporated herein by this reference (hereinafter "Scope of Work"), and within the times or by the dates provided for in Exhibit “A” and pursuant to Article 7, Prosecution of Work. In the event of a conflict between the body of this Agreement and Exhibit “A”, the provisions in the body of this Agreement shall control.

1.2 Cooperation With County. Consultant shall cooperate with County and County staff in the performance of all work hereunder.

1.3 Performance Standard. Consultant shall perform all work hereunder in a manner consistent with the level of competency and standard of care normally observed by a person practicing in Consultant's profession. County has relied upon the professional ability and training of Consultant as a material inducement to enter into this Agreement. Consultant hereby agrees to provide all services under this Agreement in accordance with generally accepted professional practices and standards of care, as well as the requirements of applicable federal, state and local laws, it being understood that acceptance of Contractor’s

work by County shall not operate as a waiver or release. If County determines that any of Consultant's work is not in accordance with such level of competency and standard of care, County, in its sole discretion, shall have the right to do any or all of the following: (a) require Consultant to meet with County to review the quality of the work and resolve matters of concern; (b) require Consultant to repeat the work at no additional charge until it is satisfactory; (c) terminate this Agreement pursuant to the provisions of Article 4; or (d) pursue any and all other remedies at law or in equity.

1.4 Assigned Personnel.

- a. Consultant shall assign only competent personnel to perform work hereunder. In the event that at any time County, in its sole discretion, desires the removal of any person or persons assigned by Consultant to perform work hereunder, Consultant shall remove such person or persons immediately upon receiving written notice from County.
- b. Any and all persons identified in this Agreement or any exhibit hereto as the project manager, project team, or other professional performing work hereunder are deemed by County to be key personnel whose services were a material inducement to County to enter into this Agreement, and without whose services County would not have entered into this Agreement. Consultant shall not remove, replace, substitute, or otherwise change any key personnel without the prior written consent of County. With respect to performance under this Agreement, Consultant shall employ the following key personnel: Gary Antonucci.
- c. In the event that any of Consultant's personnel assigned to perform services under this Agreement become unavailable due to resignation, sickness or other factors outside of Consultant's control, Consultant shall be responsible for timely provision of adequately qualified replacements.

2. Payment. For all services and incidental costs required hereunder, Consultant shall be paid on a time and material/expense basis in accordance with the budget set forth in Exhibit B, provided, however, that total payments to Consultant shall not exceed \$500,009, without the prior written approval of County. Consultant shall submit its bills in arrears on a monthly basis in a form approved by County's Auditor and the Head of the County Department receiving the services. The bills shall show or include: (i) the task(s) performed; (ii) the time in quarter hours devoted to the task(s); (iii) the hourly rate or rates of the persons performing the task(s); and (iv) copies of receipts for reimbursable materials/expenses, if any. Expenses not expressly authorized by the Agreement shall not be reimbursed.

Unless otherwise noted in this agreement, payments shall be made within the normal course of county business after presentation of an invoice in a form approved by the County for services performed. Payments shall be made only upon the satisfactory completion of the services as determined by the County.

Pursuant to California Revenue and Taxation code (R&TC) Section 18662, the County shall withhold seven percent of the income paid to Consultant for services performed within the State of California under this agreement, for payment and reporting to the California Franchise Tax Board, if Consultant does not qualify as: (1) a corporation with its principal place of business in California, (2) an LLC or Partnership with a permanent place of business in California, (3) a corporation/LLC or Partnership qualified to do business in California by the Secretary of State, or (4) an individual with a permanent residence in the State of California.

If Consultant does not qualify, County requires that a completed and signed Form 587 be provided by the Consultant in order for payments to be made. If consultant is qualified, then the County requires a completed Form 590. Forms 587 and 590 remain valid for the duration of the Agreement provided there is no material change in facts. By signing either form, the contractor agrees to promptly notify the County of any changes in the facts. Forms should be sent to the County pursuant to Article 12. To reduce the amount withheld, Consultant has the option to provide County with either a full or partial waiver from the State of California.

3. Term of Agreement. The term of this Agreement shall be from Effective Date to December 31, 2015 unless terminated earlier in accordance with the provisions of Article 4 below.

4. Termination.

4.1 Termination Without Cause. Notwithstanding any other provision of this Agreement, at any time and without cause, County shall have the right, in its sole discretion, to terminate this Agreement by giving 5 days written notice to Consultant.

4.2 Termination for Cause. Notwithstanding any other provision of this Agreement, should Consultant fail to perform any of its obligations hereunder, within the time and in the manner herein provided, or otherwise violate any of the terms of this Agreement, County may immediately terminate this Agreement by giving Consultant written notice of such termination, stating the reason for termination.

4.3 Delivery of Work Product and Final Payment Upon Termination.

In the event of termination, Consultant, within 14 days following the date of termination, shall deliver to County all materials and work product subject to Section 9.11 (Ownership and Disclosure of Work Product) and shall submit to County an invoice showing the services performed, hours worked, and copies of receipts for reimbursable expenses up to the date of termination.

4.4 Payment Upon Termination. Upon termination of this Agreement by County, Consultant shall be entitled to receive as full payment for all services satisfactorily rendered and expenses incurred hereunder, an amount which bears the same ratio to the total payment specified in the Agreement as the services satisfactorily rendered hereunder by Consultant bear to the total services otherwise required to be performed for such total payment; provided, however, that if services which have been satisfactorily rendered are to be paid on a per-hour or per-day basis, Consultant shall be entitled to receive as full payment an amount

equal to the number of hours or days actually worked prior to the termination times the applicable hourly or daily rate; and further provided, however, that if County terminates the Agreement for cause pursuant to Section 4.2, County shall deduct from such amount the amount of damage, if any, sustained by County by virtue of the breach of the Agreement by Consultant.

4.5 Authority to Terminate. The Board of Supervisors has the authority to terminate this Agreement on behalf of the County. In addition, the Purchasing Agent or Transportation and Public Works Department Head, in consultation with County Counsel, shall have the authority to terminate this Agreement on behalf of the County.

5. Indemnification. Consultant agrees to accept responsibility for loss or damage to any person or entity, including County, and to defend, indemnify, hold harmless, and release County, its officers, agents, and employees, from and against any actions, claims, damages, liabilities, disabilities, or expenses, that may be asserted by any person or entity, including Consultant, that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of Consultant or its agents, employees, contractors, subcontractors, or invitees hereunder, whether or not there is concurrent negligence on County's part, but, to the extent required by law, excluding liability due to County's conduct. This indemnification obligation is not limited in any way by any limitation on the amount or type of damages or compensation payable to or for Consultant or its agents, employees, contractors, subcontractors, or invitees under workers' compensation acts, disability benefits acts, or other employee benefit acts. This indemnity provision survives the Agreement.

6. Insurance. With respect to performance of work under this Agreement, Consultant shall maintain and shall require all of its subcontractors, consultants, and other agents to maintain, insurance as described in Exhibit C, which is attached hereto and incorporated herein by this reference

7. Prosecution of Work. The execution of this Agreement shall constitute Consultant's authority to proceed immediately with the performance of this Agreement. Performance of the services hereunder shall be completed within the time required herein, provided, however, that if the performance is delayed by earthquake, flood, high water, or other Act of God or by strike, lockout, or similar labor disturbances, the time for Consultant's performance of this Agreement shall be extended by a number of days equal to the number of days Consultant has been delayed.

8. Extra or Changed Work. Extra or changed work or other changes to the Agreement may be authorized only by written amendment to this Agreement, signed by both parties. Minor changes, which do not increase the amount paid under the Agreement, and which do not significantly change the scope of work or significantly lengthen time schedules may be executed by the Department Head in a form approved by County Counsel. The Board of Supervisors/Purchasing Agent must authorize all other extra or changed work. The parties expressly recognize that, pursuant to Sonoma County Code Section 1-11, County personnel are without authorization to order extra or changed work or waive Agreement requirements. Failure of Consultant to secure such written authorization for extra or changed work shall constitute a

waiver of any and all right to adjustment in the Agreement price or Agreement time due to such unauthorized work and thereafter Consultant shall be entitled to no compensation whatsoever for the performance of such work. Consultant further expressly waives any and all right or remedy by way of restitution and quantum meruit for any and all extra work performed without such express and prior written authorization of the County.

9. Representations of Consultant.

9.1 Standard of Care. County has relied upon the professional ability and training of Consultant as a material inducement to enter into this Agreement. Consultant hereby agrees that all its work will be performed and that its operations shall be conducted in accordance with generally accepted and applicable professional practices and standards as well as the requirements of applicable federal, state and local laws, it being understood that acceptance of Consultant's work by County shall not operate as a waiver or release.

9.2 Status of Consultant. The parties intend that Consultant, in performing the services specified herein, shall act as an independent contractor and shall control the work and the manner in which it is performed. Consultant is not to be considered an agent or employee of County and is not entitled to participate in any pension plan, worker's compensation plan, insurance, bonus, or similar benefits County provides its employees. In the event County exercises its right to terminate this Agreement pursuant to Article 4, above, Consultant expressly agrees that it shall have no recourse or right of appeal under rules, regulations, ordinances, or laws applicable to employees.

9.3 No Suspension or Debarment. Consultant warrants that it is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in covered transactions by any federal department or agency. Consultant also warrants that it is not suspended or debarred from receiving federal funds as listed in the List of Parties Excluded from Federal Procurement or Non-procurement Programs issued by the General Services Administration. If the Consultant becomes debarred, consultant has the obligation to inform the County

9.4 Taxes. Consultant agrees to file federal and state tax returns and pay all applicable taxes on amounts paid pursuant to this Agreement and shall be solely liable and responsible to pay such taxes and other obligations, including, but not limited to, state and federal income and FICA taxes. Consultant agrees to indemnify and hold County harmless from any liability which it may incur to the United States or to the State of California as a consequence of Consultant's failure to pay, when due, all such taxes and obligations. In case County is audited for compliance regarding any withholding or other applicable taxes, Consultant agrees to furnish County with proof of payment of taxes on these earnings.

9.5 Records Maintenance. Consultant shall keep and maintain full and complete documentation and accounting records concerning all services performed that are compensable under this Agreement and shall make such documents and records available to

County for inspection at any reasonable time. Consultant shall maintain such records for a period of four (4) years following completion of work hereunder.

9.6 Conflict of Interest. Consultant covenants that it presently has no interest and that it will not acquire any interest, direct or indirect, that represents a financial conflict of interest under state law or that would otherwise conflict in any manner or degree with the performance of its services hereunder. Consultant further covenants that in the performance of this Agreement no person having any such interests shall be employed. In addition, if requested to do so by County, Consultant shall complete and file and shall require any other person doing work under this Agreement to complete and file a "Statement of Economic Interest" with County disclosing Consultant's or such other person's financial interests.

9.7 Statutory Compliance. Contractor agrees to comply with all applicable federal, state and local laws, regulations, statutes and policies applicable to the services provided under this Agreement as they exist now and as they are changed, amended or modified during the term of this Agreement. Without limiting the generality of the foregoing, Consultant expressly agrees, on behalf of itself and on behalf of all its agents, employees, subconsultants, and subcontractors, to comply with the federal contract requirements set forth in Section 13 herein.

9.8 Nondiscrimination. Without limiting any other provision hereunder, Consultant shall comply with all applicable federal, state, and local laws, rules, and regulations in regard to nondiscrimination in employment because of race, color, ancestry, national origin, religion, sex, marital status, age, medical condition, pregnancy, disability, sexual orientation or other prohibited basis, including without limitation, the County's Non-Discrimination Policy. All nondiscrimination rules or regulations required by law to be included in this Agreement are incorporated herein by this reference.

9.9 AIDS Discrimination. Consultant agrees to comply with the provisions of Chapter 19, Article II, of the Sonoma County Code prohibiting discrimination in housing, employment, and services because of AIDS or HIV infection during the term of this Agreement and any extensions of the term.

9.10 Assignment of Rights. Consultant assigns to County all rights throughout the world in perpetuity in the nature of copyright, trademark, patent, right to ideas, in and to all versions of the plans and specifications, if any, now or later prepared by Consultant in connection with this Agreement. Consultant agrees to take such actions as are necessary to protect the rights assigned to County in this Agreement, and to refrain from taking any action which would impair those rights. Consultant's responsibilities under this provision include, but are not limited to, placing proper notice of copyright on all versions of the plans and specifications as County may direct, and refraining from disclosing any versions of the plans and specifications to any third party without first obtaining written permission of County. Consultant shall not use or permit another to use the plans and specifications in connection with this or any other project without first obtaining written permission of County.

9.11 Ownership and Disclosure of Work Product. All reports, original drawings, graphics, plans, studies, and other data or documents ("documents"), in whatever form or format, assembled or prepared by Consultant or Consultant's subcontractors, consultants, and other agents in connection with this Agreement shall be the property of County. County shall be entitled to immediate possession of such documents upon completion of the work pursuant to this Agreement. Upon expiration or termination of this Agreement, Consultant shall promptly deliver to County all such documents, which have not already been provided to County in such form or format, as County deems appropriate. Such documents shall be and will remain the property of County without restriction or limitation. Consultant may retain copies of the above-described documents but agrees not to disclose or discuss any information gathered, discovered, or generated in any way through this Agreement without the express written permission of County.

9.12 Authority. The undersigned hereby represents and warrants that he or she has authority to execute and deliver this Agreement on behalf of Consultant.

10. Demand for Assurance. Each party to this Agreement undertakes the obligation that the other's expectation of receiving due performance will not be impaired. When reasonable grounds for insecurity arise with respect to the performance of either party, the other may in writing demand adequate assurance of due performance and until such assurance is received may, if commercially reasonable, suspend any performance for which the agreed return has not been received. "Commercially reasonable" includes not only the conduct of a party with respect to performance under this Agreement, but also conduct with respect to other agreements with parties to this Agreement or others. After receipt of a justified demand, failure to provide within a reasonable time, but not exceeding thirty (30) days, such assurance of due performance as is adequate under the circumstances of the particular case is a repudiation of this Agreement. Acceptance of any improper delivery, service, or payment does not prejudice the aggrieved party's right to demand adequate assurance of future performance. Nothing in this Article limits County's right to terminate this Agreement pursuant to Article 4.

11. Assignment and Delegation. Neither party hereto shall assign, delegate, sublet, or transfer any interest in or duty under this Agreement without the prior written consent of the other, and no such transfer shall be of any force or effect whatsoever unless and until the other party shall have so consented.

12. Method and Place of Giving Notice, Submitting Bills and Making Payments. All notices, bills, and payments shall be made in writing and shall be given by personal delivery or by U.S. Mail or courier service. Notices, bills, and payments shall be addressed as follows:

TO: COUNTY:

Sonoma County Department of Transportation and
Public Works
Attn: Levi Gurule
2300 County Center Drive, Suite B-100
Santa Rosa, CA 95403

(707) 565-2231
Levi.Gurule@sonoma-county.org

TO: CONSULTANT: Moffatt & Nichol, a California Corporation
2185 N. California Blvd
Walnut Creek, CA 94596-3500
Telephone: (925) 944-5411 Fax: (925) 944-4732
gantonucci@moffattnichol.com

When a notice, bill or payment is given by a generally recognized overnight courier service, the notice, bill or payment shall be deemed received on the next business day. When a copy of a notice, bill or payment is sent by facsimile or email, the notice, bill or payment shall be deemed received upon transmission as long as (1) the original copy of the notice, bill or payment is promptly deposited in the U.S. mail and postmarked on the date of the facsimile or email (for a payment, on or before the due date), (2) the sender has a written confirmation of the facsimile transmission or email, and (3) the facsimile or email is transmitted before 5 p.m. (recipient's time). In all other instances, notices, bills and payments shall be effective upon receipt by the recipient. Changes may be made in the names and addresses of the person to whom notices are to be given by giving notice pursuant to this paragraph.

13. Federal Requirements.

13.1 Contract Assurance. Neither Consultant nor any subconsultant shall discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. Consultant shall carry out all applicable requirements of Part 26 of Title 49 of the Code of Federal Regulations in the award and administration of any United States Department of Transportation ("USDOT")-assisted contracts. Failure by Consultant to carry out these requirements shall constitute a material breach of this Agreement, which may result in the termination of this Agreement, or such other remedy as County deems appropriate. Consultant shall include the foregoing contract assurance statement in every subcontract entered into by Consultant in the performance of its obligations under this Agreement.

13.2 Prompt Progress Payments to Subcontractors. Attention is directed to Section 7108.5 of the California Business and Professions Code, which requires a prime contractor or subcontractor to pay any subcontractor not later than ten (10) days of receipt of each progress payment, unless otherwise agreed to in writing. In addition, federal regulations (Title 49 Code of Federal Regulations Part 26.29) require a prime contractor or subcontractor to pay a subcontractor no later than thirty (30) days of receipt of each payment, unless any delay or postponement of payment among the parties takes place only for good cause and with the prior written approval of County. Section 7108.5 of the California Business and Professions Code also contains enforcement actions and penalties. The requirements apply to both Disadvantaged Business Entities ("DBE") and non-DBE subcontractors. Consultant shall include the foregoing progress payment requirements in every subcontract entered into by Consultant in the performance of its obligations under this Agreement

13.3 Prompt Payment of Withheld Funds to Subcontractors. County shall hold retainage from Consultant and shall make prompt and regular incremental acceptances of portions of the services provided under the Scope of Work, as determined by County, in its sole discretion, to be appropriate. Based on said incremental acceptance, County shall pay the retainage to Consultant in an amount which bears the same ratio that the incremental services accepted bear to the total payment specified in the Scope of Services. Consultant and/or any subcontractor shall pay all monies withheld in retainage from their respective subcontractors within thirty (30) days after receipt by Consultant of such incremental payment from County. In addition, Consultant and/or any subcontractor shall promptly release all monies withheld in retainage from their respective subcontractors within thirty (30) days after such subcontractors' work is satisfactorily completed. Consultant may delay or postpone payment only for good cause **and** with County's prior written approval. Any violation of these provisions shall subject the Consultant to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business and Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the contractor or subcontractor in the event of: a dispute involving late payment or nonpayment by the contractor; deficient subcontractor performance and/or noncompliance by a subcontractor. This clause applies to both DBE and non-DBE subcontractors. For the purposes of this Section 13.3, a subcontractor's work is satisfactorily completed when all tasks called for in the subcontract have been accomplished and documented as required by County; in addition, any work of a subcontractor covered by an incremental acceptance (as described above) shall be deemed to be satisfactorily completed when County makes an incremental acceptance of a portion of the contract work.

14. Miscellaneous Provisions.

14.1 No Waiver of Breach. The waiver by County of any breach of any term or promise contained in this Agreement shall not be deemed to be a waiver of such term or provision or any subsequent breach of the same or any other term or promise contained in this Agreement.

14.2 Construction. To the fullest extent allowed by law, the provisions of this Agreement shall be construed and given effect in a manner that avoids any violation of statute, ordinance, regulation, or law. The parties covenant and agree that in the event that any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions hereof shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby. Consultant and County acknowledge that they have each contributed to the making of this Agreement and that, in the event of a dispute over the interpretation of this Agreement, the language of the Agreement will not be construed against one party in favor of the other. Consultant and County acknowledge that they have each had an adequate opportunity to consult with counsel in the negotiation and preparation of this Agreement.

14.3 Consent. Wherever in this Agreement the consent or approval of one party is required to an act of the other party, such consent or approval shall not be unreasonably withheld or delayed.

14.4 No Third Party Beneficiaries. Nothing contained in this Agreement shall be construed to create and the parties do not intend to create any rights in third parties.

14.5 Applicable Law and Forum. This Agreement shall be construed and interpreted according to the substantive law of California, regardless of the law of conflicts to the contrary in any jurisdiction. Any action to enforce the terms of this Agreement or for the breach thereof shall be brought and tried in Santa Rosa or the forum nearest to the city of Santa Rosa, in the County of Sonoma.

14.6 Captions. The captions in this Agreement are solely for convenience of reference. They are not a part of this Agreement and shall have no effect on its construction or interpretation.

14.7 Merger. This writing is intended both as the final expression of the Agreement between the parties hereto with respect to the included terms and as a complete and exclusive statement of the terms of the Agreement, pursuant to Code of Civil Procedure Section 1856. No modification of this Agreement shall be effective unless and until such modification is evidenced by a writing signed by both parties.

14.8. Survival of Terms. All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.

14.9 Time of Essence. Time is and shall be of the essence of this Agreement and every provision hereof.

—THIS SPACE INTENTIONALLY LEFT BLANK—

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the Effective Date.

CONSULTANT: _____

By: _____

Name: _____

Title: _____

Date: _____

COUNTY: COUNTY OF SONOMA

CERTIFICATES OF INSURANCE ON
FILE WITH AND APPROVED AS TO
SUBSTANCE FOR COUNTY:

By: _____
Department Head

Date: _____

APPROVED AS TO FORM FOR
COUNTY:

By: _____
County Counsel

Date: _____

By: _____
Chair
Board of Supervisors

Date: _____

ATTEST:

Clerk of the Board of
Supervisors

Introduction

This project will replace the existing structurally deficient two-lane Watmaugh Road Bridge (Bridge No. 20C-0017) with a new two lane bridge designed to meet current design standards including improvements to roadway approaches and appurtenant facilities. The replacement bridge will comply with current roadway, drainage and bridge standards and accommodate the 100-year storm event with freeboard as specified by the County of Sonoma. Roadway improvements will conform to the County General Plan and Public Road Standards for the appropriate road classification including design speed, maximum grade and minimum centerline curve radius. Bridge improvements will conform to latest Caltrans specifications and manuals for LRFD design. The project does not increase traffic capacity.

This project is federally funded and must satisfy all requirements under the Federal Highway Bridge Program criteria, including approval by the California Department of Transportation (Caltrans). General services will include preliminary engineering analysis, field investigation and data gathering, environmental documentation, analysis and design, and preparation of final plans, specifications, and estimates.

Scope of Work

Task 1 – Preliminary Engineering

1.1 Project Management. Provide overall management services for control and administration of the work during this task. Implement quality control procedures, submit invoices and progress reports, and oversee subconsultant activities.

1.1.1 Project Schedule. Prepare a project schedule utilizing *MS Project* software and submit for County concurrence. Update schedule on a monthly basis.

1.1.2 Project Meetings. Conduct regular Project Progress Meetings with County oversight staff. Conduct additional focus meetings as requested by County to address technical issues. Prepare and distribute meeting agenda and minutes.

1.2 Data Collection/Site Review. Gather record data pertinent to the project from County files. Conduct field review of project site.

1.3 Utility Coordination. Conduct review of existing utility facilities. Notify the relevant utility entities within the project area to determine what, if any, utilities may exist within the project limits. (It is anticipated that there are no existing utilities within the roadway right of way except for overhead power/communication lines.) Provide coordination to verify if utility relocations or special protection requirements will be necessary prior to or during construction activities.

1.4 Surveying/Mapping/Right of Way Engineering. Obtain record maps, establish horizontal and vertical control, and provide surveying services for the following:

1.4.1 Topographic Survey. Prepare electronic topographic map of project area with one foot contour interval. Coverage area to include Watmaugh Road extending 400 feet from each end of existing bridge. Mapping will extend 20 feet beyond the edge of pavement on each side of the roadway where access is available. Coverage in the vicinity of the proposed bridge will extend 50 feet upstream and downstream from each edge of deck. Mapping to be based on NAVD 88 Vertical Elevation and horizontal correlation to California Coordinate System of 1983, Zone 2.

**SCOPE OF SERVICES FOR DESIGN OF
WATMAUGH ROAD BRIDGE OVER SONOMA CREEK**

County of Sonoma
Department of Public Works

1.4.2 Right of Way Survey. Perform right of way survey in sufficient detail to delineate existing roadway right of way. (Preliminary research indicates that Watmaugh Road right of way has not previously been completely mapped.) Perform boundary research to compile existing data, and conduct boundary survey to search for, and locate if found, existing monumentation. Perform reduction and resolution of right of way and prepare a Record of Survey for recording with the Sonoma County Surveyor.

1.4.3 Legal Descriptions. Prepare up to five legal descriptions for permanent right of way acquisition and up to five legal descriptions for temporary right of way acquisition for use by County Real Property staff.

1.4.4 Sonoma Creek Mapping. Obtain cross sections of Sonoma Creek for use in support of hydraulic analysis. Sections to be taken at approximately 250 foot intervals for a distance of 1000 feet upstream and downstream of existing bridge.

1.5 Hydraulic Analysis. Research record data, conduct analysis to determine hydraulic parameters for design, and prepare hydraulic report as follows:

1.5.1 Review Data and Reports. Collect and review hydraulic-related record data including:

- As-built drawings of existing bridge
- Field Inspection Report, Degradation Analysis Report, Seismic Retrofit Impact Report (Northwest Hydraulic Consultants, 1997)
- Final Foundation Report, Seismic Retrofit of Sonoma Creek Bridge (EMI, 1998)
- FEMA Flood Insurance Study (FIS) and FIRM Map (1997)
- USGS Flow Gage Data (Gage 11458500, Sonoma Creek at Agua Caliente)
- USGS National Elevation Dataset (NED)

1.5.2 Hydraulic Analysis. Verify the 50-year and 100-year flood-flows from the FEMA FIS using the available USGS flow gage data on Sonoma Creek. Prepare cross-sections from topographic data for use in a hydraulic model of the bridge location. Perform hydraulic analysis, using the U.S. Army Corps of Engineer's HEC-RAS model, to determine the 50-year and 100-year hydraulic grade lines for Sonoma Creek through the proposed bridge structure. Basis of design to be Caltrans/FHWA criteria requiring a minimum freeboard of 2-feet for the two percent (2%) probability flood (Q50), and minimum freeboard of 1-foot for Q100.

1.5.3 Geomorphic and Scour Analysis. Calculate potential for contraction scour, local scour, and pier scour from the proposed bridge design using equations from the FHWA HEC-18 Manual, "Evaluating Scour at Bridges", based on the cross-sectionally averaged base flood (Q100) velocities derived from the hydraulic modeling. Evaluate the stream stability at the design location by applying the Level-1 geomorphic assessment methods outlined in the FHWA HEC-20 Manual, "Stream Stability at Highway Crossings". The available bridge inspection records will be used to identify aggradation and degradation trends and to identify lateral migration and channel widening.

1.5.4 Hydraulic Report. Prepare final design hydraulic report summarizing the results of the hydraulic, geomorphic, and scour assessments and provide recommendations for final design.

1.6 Geotechnical Investigation. Conduct field investigation, laboratory testing and preparation of geotechnical design recommendations as follows:

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1.6.1 Field Investigation. Prior to the field exploration, prepare a boring location map which will be used to apply for an encroachment permit from Sonoma County. Excavate three exploratory borings to investigate subsurface conditions and collect soil samples. Two of the borings will be located at the abutments and the third boring will be within the creek. The abutment borings will not exceed a depth of 80 feet below the existing ground surface at the approach, and the center pier boring will not exceed a depth of 120 feet below the creek bottom. The pier boring will be excavated from the existing bridge deck. This will be accomplished by coring a 10-inch +/- diameter opening on the bridge deck, inserting a temporary casing through the opening, and operating the drill string inside this casing to collect soil samples. Once the drill string and casing are removed, the opening at the bridge deck will be filled with quick-set cement. Abutment boreholes will be backfilled with soil cuttings mixed with cement. In paved areas, ground cover will be quick-set cement or cold patch asphalt. Provide traffic control for the three borings in accordance with Sonoma County requirements.

Collect soil samples for laboratory testing, including bulk samples of near-surface soils and small disturbed and relatively undisturbed ring samples of deeper soils. The small disturbed and relatively undisturbed soil samples will be collected using split-spoon samplers at a vertical interval of 5 feet, alternating between the Standard Penetration Test (SPT) sampler and the Modified California Drive (MCD) sampler. Samples of subsurface soils will be logged during the field investigation, secured in their containers or collected in plastic bags, and transported to the laboratory.

1.6.2 Laboratory Testing. Select representative soil samples for laboratory testing. Various laboratory tests will be performed to determine or derive physical and engineering characteristics of soils. Anticipated laboratory soil tests include: in-place moisture and density, grain size distribution, direct shear, R-value, maximum density and optimum moisture content, and soil corrosion tests. Tests will be conducted in general accordance with California Test methods or ASTM standards

1.6.3 Geotechnical Engineering Analysis. Results obtained from the investigation and laboratory testing will be used to characterize subsurface soils and conditions, and create idealized profiles for design purposes. The following analyses will be performed:

- Evaluate seismicity, estimate peak ground acceleration and assess liquefaction potential.
- Perform foundation design for the bridge.
- Evaluate global stability and settlement of earthen embankments.
- Evaluate soil corrosivity
- Calculate pavement structural sections in accordance with Caltrans methods

1.6.4 Report Preparation. Prepare a brief Preliminary Foundation Memo for the Bridge Type Selection Study. The memo will be prepared using existing soil boring data. For final design of the bridge, prepare a Foundation Report (FR). The FR will follow Caltrans guidelines for "Foundation Report Preparation for Bridge Foundations" dated December 2009. The pavement structural section will be included in a short letter report.

1.7. Prepare 35% Design. Conduct sufficient engineering analysis and design to prepare a 35% package defining the key elements and requirements of the project, including the following items:

1.7.1 Design Basis Memorandum. Confer with County staff to develop project specific design criteria and document the criteria in a Design Basis Memorandum. This will include identification of the appropriate design speeds, roadway widths, structural/seismic criteria, traffic handling during

construction, hydraulic/hydrological solutions, aesthetic considerations and other appropriate project sensitive issues.

1.7.2 Geometric Approval Drawings. Develop preliminary geometrics to reflect the established design criteria, and prepare draft GAD's. Conduct a workshop with County staff to present and obtain consensus on the proposed geometrics. (It is anticipated that design standards can be met without requiring non-standard features.)

1.7.3 Bridge Type Selection Study. Conduct Bridge Type Selection Study in accordance with FHWA and Caltrans guidelines. Identify and analyze bridge types suitable for the site. The study will consider geometrics, hydraulics, foundation conditions, safety, economy, environmental impacts, serviceability and aesthetics. Prepare a Bridge General Plan for the recommended alternative in 11x17 format, along with a preliminary cost estimate. Prepare a Type Selection Memorandum describing methodology, types considered, pertinent features of design, and recommendations. Submit Type Selection Package for County concurrence.

1.7.4 Transportation Management Plan (TMP). Develop a TMP will to document how the project will handle traffic circulation and local access, with adequate space for safe and efficient construction. The TMP will be coordinated with the County and other local agencies, key stakeholders, and adjacent residents.

1.7.5 Preliminary Storm Water Mitigation Plan. Based on a review of the Guidelines for the Standard Urban Storm Water Mitigation Plan (SUSMP), which is applicable to the unincorporated area around the City of Sonoma, a Storm Water Mitigation Plan will be required for review and approval by the County. Develop a preliminary storm water mitigation plan which includes the following:

- Project description
- Impervious surface and proximity worksheets
- estimated pre- and post-development runoff calculations
- identifying pollutants of concern
- Types of BMPs selected to mitigate pollutants
- Types of BMPs selected to limit channel-forming discharges
- Preliminary treatment control BMP sizing
- Waiver documents, if any
- Responsibility for BMP maintenance
- Drawing showing the location and conceptual design of the BMPs

1.7.6 Preliminary Cost Estimate. Prepare a preliminary cost estimate reflecting the proposed 35% design.

1.7.7 35% Submittal. Compile engineering drawings and reports and submit 35% design package for County review and approval.

Task 2 - Environmental Document

2.1 Project Management. Conduct management services for oversight of environmental consultant's activities and coordination with Caltrans, FHWA, and resource agencies.

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2.2 Engineering Support. Provide technical engineering analysis and support as needed for preparation of environmental document.

2.3 Environmental Services. Review completed PES Form, conduct technical studies, perform Hazardous Materials ISA, coordinate with agencies, and prepare environmental documentation to obtain clearance under CEQA and NEPA. Services will include:

2.3.1 Environmental Coordination and Management. Provide coordination and management services throughout this task related to preparation of environmental document. Attend up to three meetings with County staff.

2.3.2 Traffic, Noise, and Community Impact Assessment Studies. Prepare a brief traffic memorandum to describe predicted LOS on detour and new bridge, and change in design speed, if any.

Prepare a brief noise and air quality memorandum. It is anticipated that a complete noise study will not be required and that a brief memorandum will be sufficient to describe construction-related noise and air quality impacts. Other than noise associated with construction traffic, no traffic-related noise impacts are anticipated, as the proposed project will not increase capacity of the bridge. The project is exempt from transportation conformity requirements (i.e., regional and project-level [CO, PM10, and PM2.5] conformity) per the bridge reconstruction exemption under 40 CFR 93.126.

Conduct research and analysis, and prepare Community Impact Assessment report. Report will be in memo format and will comply with the Caltrans SER requirements.

2.3.3 Biological Resources Technical Studies. Conduct evaluation and prepare studies as follows:

Natural Environment Study. Prepare a Natural Environment Study (NES) report using the guidelines from Caltrans' Guidance for Consultants Procedures for Completing the Natural Environmental Study and Related Biological Reports (1997) and Caltrans' April 30, 2002 memorandum. Effort will include coordinating with federal and state biologists at U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), Caltrans, and California Department of Fish and Game (CDFG), as necessary, to obtain information on special-status species and discuss project effects and needed mitigation for impacts on sensitive biological resources.

Obtain and review existing information to identify the potential biological resources that may be associated with the proposed project. Conduct surveys to characterize common and sensitive natural communities, delineate waters of the United States that are subject to regulation by the USACE under Clean Water Act Section 404, characterize and map suitable habitat for special-status wildlife species, and identify special-status and invasive plants in the project area. Up to two surveys will be conducted for special-status plants, in spring and summer, in order to coincide with the blooming periods for plant species within the project area. The anticipated survey area will include the proposed project area and a 100-foot buffer in areas adjacent to the project area (to evaluate potential indirect effects). If federally protected species and/or habitat are identified through the field studies, a biological assessment may be required as part of Section 7. If a biological assessment is required, it can be accommodated under separate scope and budget.

Wetlands Delineation. Delineate waters of the U.S, including wetlands and drainages in the study area that may be subject to regulation by USACE under Section 404 of the Clean Water Act. The delineation will be conducted according to the protocol outlined in the 1987 Corps of Engineers

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Wetlands Delineation Manual. The delineation survey will be conducted concurrent with one of the botanical surveys. Prepare a delineation report that is consistent with the methods and reporting standards acceptable to the USACE. The report and map will clearly identify the area subject to the delineation, the boundaries of waters of the United States within the study area, data points, and the acreages of each feature in a format that is acceptable to the USACE. The delineation will be prepared consistent with the USACE's guidance for preliminary jurisdictional determinations (JDs) and will not include the additional information required in support of an approved JD. This delineation will be suitable for use in obtaining a USACE nationwide permit under Section 404 of the Clean Water Act. It is anticipated that a desk verification will be conducted by the USACE and a field visit with the USACE will not be needed.

2.3.4 Cultural Resources Technical Studies. Conduct evaluation and prepare studies as follows:

Archaeological Survey. Coordinate with Caltrans to create a map of the archaeological or direct Area of Potential Effects (APE). This map will reflect all areas that may be directly affected by project construction and operation, including staging, access, and borrow locations.

Conduct a records search at the Northwest Information Center of the California Historical Resources Information System at Sonoma State University in Rohnert Park. The records search will encompass the APE and a one-mile radius around the APE. Previous studies and known resources will be mapped and site records will be obtained. Additional research will be conducted in-house, as well as museums, historical societies, and other local and state repositories in order to gather information necessary to assess sensitivity and create a cultural context for the area.

Contact the Native American Heritage Commission and request a search of its sacred lands database and list of potentially interested or knowledgeable Native American representatives. A letter describing the project, along with a map, will be sent to all Native American representatives requesting their input and concerns. Follow up phone calls will be made to those representatives that have not responded in approximately two weeks to make sure the letter was received.

Conduct a field inventory. Actual survey coverage will be determined in the field based on factors such as ground visibility, sensitivity, and level of development. Areas with good ground visibility will be surveyed using transects spaced 10 (ten) meters apart.

Present methods and results of the archaeological study in an Archaeological Survey Report (ASR). The ASR will also include cultural setting; records search results, documentation of all consultation with Native Americans, and an analysis of potential for buried sites within the APE.

Historical and Architectural Resource Studies. Coordinate with Caltrans to determine any areas of concern that will need to be addressed in the Section 106 documentation related to the proposed project. (Caltrans has determined that the Watmaugh Bridge is not eligible for the National Register of Historic Places (NRHP). However, in 1981, the bridge was designated as a historic landmark by the County's Landmark Commission and is therefore a historical resource under CEQA.) Work with Caltrans specialists to delineate an architectural APE, which will take into account indirect as well as direct impacts. It is anticipated that the APE will include the Watmaugh Bridge, as well as two to three homes at the four quadrants around the bridge, and assumed that the bridge and these houses are the only properties that will need to be inventoried. It is further assumed that there will be no National Register eligible property within the APE and that the bridge will be the only historical resource under CEQA.

Document findings in a Historic Property Survey Report (HPSR) and a Historical Resources Evaluation Report (HRER). It is not proposed to write a Finding of Effect document under Section 106 because the bridge is not eligible for the NRPH. However, the bridge will be demolished, which will constitute a substantial adverse change under CEQA regulations. Document those effects in the CEQA document and outline such mitigation measures as are appropriate and acceptable to the County and the public.

2.3.5 CEQA and NEPA Documentation. Following receipt of Caltrans comments on all technical studies, prepare an administrative draft of the environmental document (assumed to be an IS/MND under CEQA and CE under NEPA). Includes production of five (5) copies of review drafts and fifteen (15) copies of the public review draft document for County distribution and 15 CDs for delivery to the Clearinghouse. CE will be prepared in Caltrans' template and provided to the County and Caltrans for review. A single round of review at Caltrans is anticipated. Participate in one public meeting to answer questions on the environmental process and findings.

2.3.6 Phase I Hazardous Materials Investigation. Perform Phase I investigation consisting of the following tasks:

Site Reconnaissance and Interviews. Conduct site visit and interview(s) with readily available current or past owners/managers at the site. During the site visit, inspect the property for visible signs of any hazardous materials releases that may have occurred. Contact with property owners or visits to property to be conducted only after County authorization.

Historical Records Search. Review historical land use information, including aerial photographs, topographic maps, Sanborn Fire Insurance maps, and city directories, as available, to determine past land uses at the site.

Regulatory Records and Select Files Review. Review federal, State, and local regulatory agency records, lists, and databases pertaining to the site. Conduct a file review with the lead regulatory agency for any reported hazardous materials release at the site.

ASTM 1527-05 Questionnaire. Provide questionnaire to a County representative and assist in gathering the appropriate information. (County is required by ASTM 1527-05 to report their knowledge of environmental conditions at the subject site.)

Title Searches. Conduct a title search for the site and summarize any environmental liens and AULs. (ASTM 1527-05 requires title searches of properties proposed for acquisition to identify any environmental liens and activity and use limitations ("AULs") associated with the property.)

Vapor Encroachment Screening. Potential for a Vapor Encroachment Condition at the site will be evaluated using the methodology in ASTM Method 2600-10.

Report Preparation. Prepare a technical report describing the activities and findings of the Phase I investigation. The report would include recommendations for further investigation, if warranted.

2.4 Resource Agency Permits. Prepare and submit applications to obtain resource agency permits as follows:

U.S. Army Corps of Engineers (404). It is anticipated that the project will qualify for Nationwide Permit 14 (linear transportation projects). Prepare and submit to the U.S. Army Corps of Engineers (Corps) a preconstruction notification package (PCN) including information regarding compliance

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with Section 401 of the Clean Water Act (CWA), the Endangered Species Act (ESA), Section 106 of the National Historic Preservation Act (NHPA), and the Mitigation Rule. Technical studies prepared for the project will provide supporting documentation. Coordinate with the County and the Corps to assist with nationwide permit authorization.

Department of Fish and Game 1601 Agreement. Prepare and submit a Lake and Streambed Alteration Notification package to the California Department of Fish and Game (CDFG). The application package will describe the project features, construction period, construction methods, impacts on vegetation, fish, and wildlife, and the proposed mitigation/restoration plan.

Regional Water Quality Control Board 401 Permit. Prepare a 401 application for review and signature by the County. The request for water quality certification will be submitted at the same time as the PCN (above); however, the issuance of the Section 401 certification requires completing the CEQA process before certification is provided.

Task 3 – Final PS&E

3.1 Project Management. Continue overall project management services (initiated in Task 1) as needed to administer project.

3.2 Coordination and Permitting. Provide coordination with affected outside agencies and utilities. Obtain environmental permits from Corps of Engineers (404), RWQCB (401), and Fish & Game (1601). Obtain project approval as needed from Sonoma County Water Agency. Coordinate with utility owners that have existing or proposed facilities within the project area.

3.3. Prepare 65% PS&E. Incorporate agency comments on Preliminary Engineering submittal, and conduct final design and prepare 65%-level plans, specifications, and estimates for construction of the project improvements, including:

3.3.1 Roadway/Civil Design. Prepare Civil/Roadway plans, anticipated to include:

- Title Sheet (1 sheet) – Includes Vicinity/Location Map, limits of work, index of sheets and other relevant information.
- Typical Cross Sections (1 sheet) – Includes representative typical cross sections showing center line, edge of traveled way, edge of shoulder/pavement, cross slopes, pavement structural sections, right of way, barriers/guard railing, ditches/bioswales and other relevant information.
- General Notes/Abbreviations/Legend (1 sheet) – Includes general notes, abbreviations and legend
- Plan/Profile Sheets (2 to 3 sheets) – Assume 1"=20' scale plans. Includes geometric alignment data, standard retaining walls, grading, drainage, existing utilities, location of relocated utilities (if any), profile information (existing & new) for center line and edge of pavement.
- Construction Details (2 sheets) – Includes details for grid grades, conforms, retaining wall, driveway modifications and other relevant miscellaneous minor roadway details
- Drainage Profiles & Details (2 sheets) – Includes drainage profiles corresponding to the systems shown on the plan/profile sheets along with specific applicable non-standard drainage details.
- Erosion & Sediment Control Plan (1 sheet) – Includes permanent erosion and sediment control
- Detour & Construction Area Signs Plan (1 sheet) – Includes a detour plan to show how traffic will be directed away from the road closure during construction. Construction area signs will be included within the detour plan sheet.

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- Construction Staging/Traffic Handling Plans (2 sheets) – Accommodate access to local property owners within the project limits during construction, construction staging and traffic handling plans to detail how access will be maintained at all times during the construction time period.
- Pavement Delineation & Sign Plan (1 sheet)- Combined pavement delineation and sign plans will be developed to identify the locations, details and quantities of painted and thermoplastic stripes and markings, pavement markers, and delineators. The plans will also show existing, removed, relocated and new signs. The plans will include sign details.

3.3.2 Bridge Design. Conduct structural analysis and prepare unchecked structural drawings for a two-span, cast-in-place posttensioned concrete box girder bridge approximately 185 feet in length. Include provisions to salvage existing truss members and attach to new structure as aesthetic enhancement. Anticipated sheets to include:

- Bridge General Plan
- Bridge General Notes
- Bridge Deck Contours
- Bridge Foundation Plan
- Abutment Layout (2)
- Abutment Details
- Pier Layout
- Pier Details
- Typical Section
- Girder Layout
- Railing Details
- Miscellaneous Details
- Aesthetic Details (2)
- Approach Slab Details
- Log of Test Borings

Bridge design to conform to latest Caltrans standards and design manuals, including LRFD and Seismic Design Criteria.

3.3.3 Final Storm Water Mitigation Plan. Incorporate agency comments from preliminary submittal and prepare a Final Storm Water Mitigation Plan including the following information:

- Detailed hydraulic calculations identifying the sizing criteria for each storm water treatment control BMP based upon the anticipated flow and/or volume
- Maintenance plan, including maintenance assurances and funding mechanism
- Plan view of the project showing all storm water related source and treatment control BMPs
- Construction details for each source and treatment control BMP

3.3.4 Local Drainage Report. Prepare a memorandum/report to document the drainage design specifics that are implemented in the final design. It will include detailed hydraulic and hydrologic analyses of the various local drainage components.

3.3.5 Cost Estimate. Prepare estimate of construction costs associated with the anticipated scope of project work at the 65% design level.

3.4 Prepare 95% PS&E. Incorporate agency comments on 65% PS&E package and advance design and plans to 95% level of completion as follows:

3.4.1 Roadway/Civil Design. Update roadway/civil plans as needed.

3.4.2 Bridge Design. Conduct independent structural design (by engineer not involved in original design), resolve differences between designer and checker, and update bridge plans as needed.

3.4.3 Update Reports. Update Final Storm Water Mitigation Plan and Local Drainage Report as needed to reflect any modifications.

3.4.4 Draft Technical Specifications. Prepare draft technical specifications (based on Caltrans Standard Specifications) to address the anticipated scope of project work. Include the technical special provisions as well as the insertion of the special provisions associated with the federal funding requirements per the guidelines in the Caltrans Local Assistance Manual.

3.4.5 Cost Estimate. Update cost estimate to reflect 95% level of completion.

3.5 Prepare 100% PS&E. Incorporate agency comments on 95% PS&E package and prepare 100% (Final) PS&E package ready for bidding as follows:

3.5.1 Roadway/Civil Design. Update and finalize roadway/civil plans as needed.

3.5.2 Bridge Design. Update and finalize bridge plans as needed.

3.5.3 Finalize Reports. Finalize Storm Water Mitigation Plan and Local Drainage Report as needed.

3.5.4 Technical Specifications. Update and finalize technical specifications as needed.

3.5.5 Cost Estimate. Update and finalize cost estimate as needed

3.5.6. Submit PS&E Package. Submit reproducible mylars of 100% (Final) drawings, and one hard-copy of specifications, estimates and reports. Submit electronic versions of 100% (Final) plans, specifications, estimates and reports. Plans to be submitted in AutoCad Civil 3D (2010 version). Specifications, estimates and reports to be submitted in the current version of Microsoft Word. Provide assistance to County for completion of necessary federal forms for approval of project and authorization for construction.

Assumptions

The foregoing scope of work is based on the following assumptions:

1. Meetings and administration are based on an assumed 30-month maximum project schedule. If schedule exceeds 30 months, contract supplement will be added for these services. In addition to monthly progress meetings, a total of 10 focus meetings have been assumed for the purposes of this proposal.
2. The environmental document for the project will be an IS/MND for CEQA and CE for NEPA. Technical studies will be limited to those specified in the scope of work.
3. Resource agency permit fees, encroachment permit fees, and Record of Survey filing fees will be paid by the County.
4. Title reports will be supplied by the County.
5. Landscaping, other than hydroseeding for erosion control, will not be required.

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6. Community outreach and advertising for public meetings is not included.
7. Preparation of Design Exception Fact Sheets is not included.
8. County will prepare boilerplate and assemble bid packages
9. Bidding and construction support services are not included.
10. Architectural rendering and/or photo simulations are not included.

EXHIBIT B

Cost Proposal Worksheet

COMPANY:	SCOPE OF WORK:	DATE:
Moffatt & Nichol	Prime Consultant/Civil & Structural Engineering	7/3/2012
PROJECT:	MILESTONE/PHASE/PROJECT SUMMARY:	
Watmaugh Road	Preliminary Engineering/Environmental/PS&E	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS	RATE	AMOUNT
Gary Antonucci	Project Management	146.0	\$ 89.91	\$ 13,126.86
Tom Hillesland	Civil Design	85.0	\$ 63.00	\$ 5,355.00
Anthony Sanchez	Structural Design	59.0	\$ 63.00	\$ 3,717.00
Senior Engineer	Civil/Structural Design	0.0	\$ 61.87	\$ -
Engineer III	Civil/Structural Design	4.0	\$ 51.34	\$ 205.36
Engineer II	Civil/Structural Design	426.0	\$ 45.02	\$ 19,178.52
Engineer I	Civil/Structural Design	580.0	\$ 36.50	\$ 21,170.00
Designer	Civil/Structural Support	268.0	\$ 41.88	\$ 11,223.84
CADD II	Plan Preparation	216.0	\$ 36.56	\$ 7,896.96
Admin	Word Processing/Clerical	10.0	\$ 18.50	\$ 185.00
-		0.0	\$ -	\$ -
-		0.0	\$ -	\$ -
TOTAL HOURS		1,794.0	TOTAL DIRECT LABOR \$ 82,059	

MULTIPLIERS

ESCALATION	5.00% (of Total Direct Labor)	\$ 4,103
OVERHEAD	189.06% (of Total Direct Labor + Escalation)	\$ 162,897
PAYROLL ADDITIVES	0.00% (of Total Direct Labor + Escalation)	\$ -
TOTAL MULTIPLIERS		\$ 167,000

OTHER DIRECT EXPENSES

ITEM	UNIT	QUANTITY	UNIT COST	AMOUNT
Reproduction	LS	1		\$ 2,000.00
Copying	LS	1		\$ 500.00
Transportation/Travel	LS	1		\$ 2,000.00
Special Deliveries	LS	1		\$ 500.00
Phase I Haz Mat Investigation	LS	1		\$ 7,000.00
Traffic Memorandum	LS	1		\$ 5,000.00
TOTAL OTHER DIRECT EXPENSES				\$ 17,000

OUTSIDE SERVICES

COMPANY	FUNCTION	TOTAL
ICF International	Environmental/Permitting	\$ 115,824
Earth Mechanics	Geotechnical Engineering	\$ 65,850
Cinquini & Passarino	Surveying/Mapping/Right of Way Engineering	\$ 27,372
		\$ -
		\$ -
		\$ -
TOTAL OUTSIDE SERVICES		\$ 209,045

FEES

OUTSIDE SERVICES ADMIN FEE	0.00% (of Total Outside Services)	\$ -
FIXED FEE	10.00% (of Total Direct Labor + Total Multipliers)	\$ 24,906
TOTAL FEES		\$ 24,906
TOTAL COST		\$ 500,009

Manhour Worksheet														
COMPANY:		SCOPE OF WORK:											DATE:	
Moffatt & Nichol		Prime Consultant/Civil & Structural Engineering											7/3/2012	
PROJECT:		MILESTONE/PHASE/PROJECT SUMMARY:												
Watmaugh Road		Preliminary Engineering/Environmental/PS&E												
Task	TASK ACTIVITY	Project Manager (G. Antonucci)	Superv. Civil Engineer (T. Hillsland)	Senior Bridge Engineer (A. Sanchez)	Senior Engineer	Engineer III	Engineer II	Engineer I	Designer	CADD II	Admin			Total Hours
1	Preliminary Engineering													-
	1.1 Project Management	20.0												20.0
	1.1.1 Project Schedule	4.0						20.0						24.0
	1.1.2 Project Meetings	40.0												40.0
	1.2 Data Collection/Site Review		4.0				8.0				2.0			14.0
	1.3 Utility Coordination		4.0				12.0							16.0
	1.4 Surveying/Mapping/ROW Engineering	2.0												2.0
	1.5 Hydraulic Analysis													-
	1.5.1 Review Data and Reports						8.0	8.0						16.0
	1.5.2 Hydraulic Analysis						16.0	24.0						40.0
	1.5.3 Geomorphic and Scour Analysis						16.0	32.0						48.0
	1.5.4 Hydraulic Report	8.0					16.0	16.0						40.0
	1.6 Geotechnical Investigation	2.0												2.0
	1.7 Prepare 35% Design													-
	1.7.1 Design Basis Memorandum	1.0	4.0				8.0							13.0
	1.7.2 Geometric Approval Drawings	2.0	8.0				12.0			24.0				46.0
	1.7.3 Bridge Type Selection Study	2.0		6.0				28.0	24.0					60.0
	1.7.4 Transportation Management Plan		2.0				24.0							26.0
	1.7.5 Prelim. Storm Water Mitigation Plan		2.0				12.0	16.0						30.0
	1.7.6 Preliminary Cost Estimate		2.0				8.0	8.0						18.0
	1.7.7 35% Submittal	1.0					4.0		4.0	4.0				13.0
2	Environmental Document													-
	2.1 Project Management	24.0												24.0
	2.2 Engineering Support		2.0				8.0							10.0
3	Final PS&E													-
	3.1 Project Management	24.0												24.0
	3.2 Coordination and Permitting	2.0	6.0				8.0	8.0						24.0
	3.3 Prepare 65% PS&E													-
	3.3.1 Roadway/Civil Design	2.0	6.0				52.0			60.0				120.0
	3.3.2 Bridge Design	2.0		24.0				180.0	200.0					406.0
	3.3.3 Final Storm Water Mitigation Plan		2.0				4.0	8.0						14.0
	3.3.4 Local Drainage Report		2.0				8.0	12.0						22.0
	3.3.5 Cost Estimate	1.0	2.0	2.0				16.0	36.0					57.0
	3.4 Prepare 95% Design													-
	3.4.1 Roadway/Civil Design	2.0	8.0				32.0			32.0				74.0
	3.4.2 Bridge Design	2.0		8.0			80.0	16.0		40.0				146.0
	3.4.3 Update Reports		2.0				2.0	12.0						16.0
	3.4.4 Draft Technical Specifications		12.0	8.0			40.0	40.0			6.0			106.0
	3.5.5 Cost Estimate		4.0	2.0				64.0						70.0
	3.5 Prepare 100% (Final) Design													-
	3.5.1 Roadway/Civil Design	2.0	4.0				20.0			32.0				58.0
	3.5.2 Bridge Design	2.0		4.0				16.0		24.0				46.0
	3.5.3 Finalize Reports						4.0	8.0						12.0
	3.5.4 Technical Specifications		4.0	2.0			12.0	32.0			2.0			52.0
	3.5.5 Cost Estimate		4.0	2.0			12.0	8.0						26.0
	3.5.6 Submit PS&E Package	1.0	1.0	1.0		4.0		8.0	4.0					19.0
														-
ALL	TOTALS	146.0	85.0	59.0	-	4.0	426.0	580.0	268.0	216.0	10.0	-	-	1,794.0

Cost Proposal Worksheet

COMPANY:	SCOPE OF WORK:	DATE:
ICF International	Environmental/Permitting	7/3/2012

PROJECT:	MILESTONE/PHASE/PROJECT SUMMARY:
Watmaugh Road	Preliminary Engineering/Environmental/PS&E

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS	RATE	AMOUNT
Elizabeth Hughes	Project Management	129.0	\$ 71.12	\$ 9,174.48
Project Coordinator	Project Coordination	240.0	\$ 25.25	\$ 6,060.00
Archaeologist	Archaeological Studies	122.0	\$ 36.80	\$ 4,489.60
Senior Historian	Historic Resource Studies	40.0	\$ 65.85	\$ 2,634.00
Historian	Historic Resource Studies	104.0	\$ 29.43	\$ 3,060.72
Fisheries	Biological Studies	55.0	\$ 31.17	\$ 1,714.35
Wildlife	Biological Studies	60.0	\$ 41.94	\$ 2,516.40
Senior Biologist	Biological Studies	8.0	\$ 64.38	\$ 515.04
Wetlands	Biological Studies	85.0	\$ 40.78	\$ 3,466.30
GIS	Production	33.0	\$ 31.50	\$ 1,039.50
Graphic Artist	Production	20.0	\$ 31.50	\$ 630.00
-		0.0	\$ -	\$ -
TOTAL HOURS		896.0	TOTAL DIRECT LABOR	\$ 35,300

MULTIPLIERS

ESCALATION	0.00% (of Total Direct Labor)	\$ -
OVERHEAD	190.22% (of Total Direct Labor + Escalation)	\$ 67,148
PAYROLL ADDITIVES	0.00% (of Total Direct Labor + Escalation)	\$ -
TOTAL MULTIPLIERS		\$ 67,148

OTHER DIRECT EXPENSES

ITEM	UNIT	QUANTITY	UNIT COST	AMOUNT
Reproduction	LS	1	\$ -	\$ 200.00
Equipment Rental	LS	1	\$ -	\$ 45.00
Postage and Delivery	LS	1	\$ -	\$ 100.00
Travel	LS	1	\$ -	\$ 500.00
Surveys and Reports (Database)	LS	1	\$ -	\$ 1,600.00
Supplies	LS	1	\$ -	\$ 400.00
Processing	LS	1	\$ -	\$ 285.00
TOTAL OTHER DIRECT EXPENSES				\$ 3,130

OUTSIDE SERVICES

COMPANY	LABOR	MULTIPLIERS	FEE	EXPENSES	TOTAL
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL OUTSIDE SERVICES					\$ -

FEES

OUTSIDE SERVICES ADMIN FEE	0.00% (of Total Outside Services)	\$ -
FIXED FEE	10.00% (of Total Direct Labor + Total Multipliers)	\$ 10,245
TOTAL FEES		\$ 10,245
TOTAL COST		\$ 115,824

Manhour Worksheet

COMPANY:

SCOPE OF WORK:

DATE: _____

PROJECT: _____

MILESTONE/PHASE/PROJECT SUMMARY:	
----------------------------------	--

Watmaugh Road

Preliminary Engineering/Environmental/PS&E

[illegible]

ALL	TOTALS	129.0	240.0	122.0	40.0	104.0	55.0	60.0	8.0	85.0	33.0	20.0	-	896.0
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Cost Proposal Worksheet

COMPANY: Earth Mechanics, Inc.	SCOPE OF WORK: Geotechnical Engineering	DATE: 7/3/2012
PROJECT: Watmaugh Road	MILESTONE/PHASE/PROJECT SUMMARY: Preliminary Engineering/Environmental/PS&E	

DIRECT LABOR

PERSONNEL	FUNCTION	HOURS	RATE	AMOUNT
Project Mgr(L. Cheang)	Project Management	60.0	\$ 75.00	\$ 4,500.00
Sr. Geologist(Jody Castle)	Field Exploration and Geology	72.0	\$ 41.20	\$ 2,966.40
Sr. Staff Engineer	Lab Testing and Report	116.0	\$ 35.50	\$ 4,118.00
Technician	LOTB	28.0	\$ 31.50	\$ 882.00
-		0.0	\$ -	\$ -
-		0.0	\$ -	\$ -
-		0.0	\$ -	\$ -
-		0.0	\$ -	\$ -
-		0.0	\$ -	\$ -
-		0.0	\$ -	\$ -
-		0.0	\$ -	\$ -
-		0.0	\$ -	\$ -
-		0.0	\$ -	\$ -
TOTAL HOURS		276.0	TOTAL DIRECT LABOR	\$ 12,466

MULTIPLIERS

ESCALATION	0.00% (of Total Direct Labor)	\$ -
OVERHEAD	165.00% (of Total Direct Labor + Escalation)	\$ 20,570
PAYROLL ADDITIVES	0.00% (of Total Direct Labor + Escalation)	\$ -
TOTAL MULTIPLIERS		\$ 20,570

OTHER DIRECT EXPENSES

ITEM	UNIT	QUANTITY	UNIT COST	AMOUNT
Traffic Control and Message Sign	LS	1	\$ 8,100.00	\$ 8,100.00
Drill Rig Rental	LS	1	\$ 10,750.00	\$ 10,750.00
Support Truck Rental	LS	1	\$ 600.00	\$ 600.00
Drums and Disposal	LS	1	\$ 4,560.00	\$ 4,560.00
Soil Lab Testing	LS	1	\$ 5,300.00	\$ 5,300.00
Deliveries	LS	1	\$ 200.00	\$ 200.00
		0	\$ -	\$ -
TOTAL OTHER DIRECT EXPENSES				\$ 29,510

OUTSIDE SERVICES

COMPANY	LABOR	MULTIPLIERS	FEE	EXPENSES	TOTAL
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL OUTSIDE SERVICES					\$ -

FEES

OUTSIDE SERVICES ADMIN FEE	0.00% (of Total Outside Services)	\$ -
FIXED FEE	10.00% (of Total Direct Labor + Total Multipliers)	\$ 3,304
TOTAL FEES		\$ 3,304
TOTAL COST		\$ 65,850

Cost Proposal Worksheet

COMPANY:		SCOPE OF WORK:			DATE:	
Cinquini & Passarino		Surveying/Mapping/Right of Way Engineering			7/3/2012	
PROJECT:		MILESTONE/PHASE/PROJECT SUMMARY:				
Watmaugh Road		Preliminary Engineering/Environmental/PS&E				
DIRECT LABOR						
PERSONNEL	FUNCTION	HOURS	RATE	AMOUNT		
Principal PLS		2.0	\$ 165.00	\$ 330.00		
PLS		64.0	\$ 142.00	\$ 9,088.00		
Technician		15.0	\$ 117.00	\$ 1,755.00		
CAD		30.0	\$ 115.00	\$ 3,450.00		
2-Man Crew		52.0	\$ 245.00	\$12,740.00		
				\$ -		
				\$ -		
				\$ -		
				\$ -		
				\$ -		
-		0.0	\$ -	\$ -		
-		0.0	\$ -	\$ -		
TOTAL HOURS		163.0	TOTAL DIRECT LABOR		\$ 27,363	
MULTIPLIERS						
ESCALATION	0.00% (of Total Direct Labor)			\$ -		
OVERHEAD	0.00% (Incl in Total Direct Labor)			\$ -		
PAYROLL ADDITIVES	0.00% (of Total Direct Labor + Escalation)			\$ -		
				TOTAL MULTIPLIERS	\$ -	
OTHER DIRECT EXPENSES						
ITEM	UNIT	QUANTITY	UNIT COST	AMOUNT		
Filing Fee				\$ 9.00		
				\$ -		
				\$ -		
		0	\$ -	\$ -		
		0	\$ -	\$ -		
				TOTAL OTHER DIRECT EXPENSES	\$ 9	
OUTSIDE SERVICES						
COMPANY	LABOR	MULTIPLIERS	FEE	EXPENSES	TOTAL	
	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	
				TOTAL OUTSIDE SERVICES	\$ -	
FEES						
OUTSIDE SERVICES ADMIN FEE	0.00% (of Total Outside Services)			\$ -		
FIXED FEE	0.00% (Incl in Total Direct Labor)			\$ -		
				TOTAL FEES	\$ -	
				TOTAL COST	\$ 27,372	

Manhour Worksheet

COMPANY:		SCOPE OF WORK:						DATE:	
Cinquini & Passarino		Surveying/Mapping/Right of Way Engineering						7/3/2012	
PROJECT:		MILESTONE/PHASE/PROJECT SUMMARY:							
Watmaugh Road		Preliminary Engineering/Environmental/PS&E							
Task	TASK ACTIVITY	Principal PLS	PLS	Technician	CAD	2-Man Crew			Total Hours
1.4	Surveying/Mapping/ROW Engineering							-	-
	1.4.1 Topographic Survey							-	-
		1.0						-	1.0
	- Office Setup					24.0		-	24.0
	- Field Work			3.0	30.0				
	- Reduction and Drafting	1.0						-	1.0
	1.4.2 Right of Way Survey							-	-
			12.0					-	12.0
	- Office Setup					12.0		-	12.0
	- Field Work		28.0				-	-	28.0
	1.4.3 Research and Prepare ROS		24.0				-	-	24.0
	1.4.4 Sonoma Creek Mapping						-	-	-
						16.0	-	-	16.0
	- Field Work			12.0			-	-	12.0
	- Reduction and Drafting						-	-	-
						-	-	-	
						-	-	-	
						-	-	-	
						-	-	-	
						-	-	-	
						-	-	-	
ALL	TOTALS	2.0	64.0	15.0	30.0	52.0	-	-	130.0

Exhibit _C_____

With respect to performance of work under this Agreement, Consultant shall maintain and shall require all of its subcontractors, consultants, and other agents to maintain insurance as described below unless such insurance has been expressly waived by the attachment of a *Waiver of Insurance Requirements*. Any requirement for insurance to be maintained after completion of the work shall survive this agreement.

1. Workers Compensation and Employers Liability Insurance

- a. Required if Consultant has employees.
- b. Workers' Compensation insurance with statutory limits as required by the Labor Code of the State of California.
- c. Employers' Liability with limits of 1,000,000 per Accident; 1,000,000 Disease per employee; 1,000,000 Disease per policy.
- d. Required Evidence of Coverage:
 - i. Certificate of Insurance

If Consultant currently has no employees, Consultant agrees to obtain the above-specified Workers' Compensation and Employers' Liability insurance should any employees be engaged during the term of this Agreement or any extensions of the term.

2. General Liability Insurance

- a. Commercial General Liability Insurance on a standard occurrence form, no less broad than ISO form CG 00 01.
- b. Minimum Limits: 1,000,000 per Occurrence; 2,000,000 General Aggregate; 2,000,000 Products/Completed Operations Aggregate.
- c. Consultant shall disclose any deductible or self-insured retention in excess of \$25,000 and such deductible or self-insured retention must be approved in advance by County. Consultant is responsible for any deductible or self-insured retention.
- d. County of Sonoma, its Officers, Agents and Employees (Attn: Transportation and Public Works, 2300 County Center Drive, Suite B100, Santa Rosa, CA 95403) shall be additional insureds for liability arising out of operations by or on behalf of the Consultant in the performance of this agreement.
- e. The insurance provided to County, et al. additional insureds shall apply on a primary and non-contributory basis with respect to any insurance or self-insurance program maintained by them.
- f. The policy definition of "insured contract" shall include assumptions of liability arising out of both ongoing operations and the products-completed operations hazard (broad form contractual liability coverage including the "f" definition of insured contract in ISO form CG 00 01, or equivalent).
- g. The policy shall cover inter-insured suits between County and Consultant and include a "separation of insureds" or "severability" clause which treats each insured separately.

h. Required Evidence of Coverage:

- i.** Copy of the additional insured endorsement or policy language granting additional insured status, and
- ii.** Certificate of Insurance.

3. Automobile Liability Insurance

- a.** Minimum Limits: \$1,000,000 combined single limit per accident.
- b.** Coverage shall apply to all owned autos. If Consultant currently owns no autos, Consultant agrees to obtain such insurance should any autos be acquired during the term of this Agreement or any extensions of the term.
- c.** Coverage shall apply to hired and non-owned autos.
- d. Required Evidence of Coverage:**
 - i.** Certificate of Insurance.

4. Professional Liability Insurance

- a.** Minimum Limit: \$2,000,000.
- b.** Consultant shall disclose any deductible or self-insured retention in excess of \$25,000 and such deductible or self-insured retention must be approved in advance by County. Consultant is responsible for any deductible or self-insured retention.
- c.** If the insurance is on a Claims-Made basis, the retroactive date shall be no later than the commencement of the work.
- d.** Coverage applicable to the work performed under this Agreement shall be continued for two (2) years after completion of the work. Such continuation coverage may be provided by one of the following: (1) renewal of the existing policy; (2) an extended reporting period endorsement; or (3) replacement insurance with a retroactive date no later than the commencement of the work under this Agreement.
- e. Required Evidence of Coverage:**
 - i.** Certificate of Insurance.

5. Standards for Insurance Companies

Insurers shall have an A.M. Best's rating of at least A:VII.

6. Documentation

- a.** The Certificate of Insurance must include the following reference: As contracted with County of Sonoma Department of Transportation & Public Works
- b.** All required Evidence of Coverage shall be submitted prior to the execution of this Agreement. Consultant agrees to maintain current Evidence of Coverage on file with County for the required period of insurance.
- c.** The name and address for Additional Insured endorsements and Certificates of Insurance is:
- d.** Required Evidence of Coverage shall be submitted for any renewal or replacement of a policy that already exists, at least ten (10) days before expiration

or other termination of the existing policy.

- e. Consultant shall provide immediate written notice if: (1) any of the required insurance policies is terminated; (2) the limits of any of the required policies are reduced; or (3) the deductible or self-insured retention is increased.
- f. Upon written request, certified copies of required insurance policies must be provided within thirty (30) days.

7. Policy Obligations

Consultant's indemnity and other obligations shall not be limited by the foregoing insurance requirements.

8. Material Breach

If Consultant fails to maintain insurance coverage which is required pursuant to this Agreement, it shall be deemed a material breach of this Agreement. County, at its sole option, may terminate this Agreement and obtain damages from Consultant resulting from said breach. Alternatively, County may purchase the required insurance coverage, and without further notice to Consultant, County may deduct from sums due to Consultant any premium costs advanced by County for such insurance. These remedies shall be in addition to any other remedies available to County.



ATTACHMENT D-5

State of California – The Natural Resources Agency

DEPARTMENT OF FISH AND GAME

Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.dfg.ca.gov

EDMUND G. BROWN JR., Governor

CHARLTON H. BONHAM, Director



September 4, 2012

Mr. Rich Stabler
Sonoma County Permit and
Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Mr. Stabler:

Subject: Watmaugh Road Bridge Replacement Project, Notice of Preparation,
SCH #2012082037, Sonoma County

The Department of Fish and Game (DFG) has reviewed the Notice of Preparation (NOP) for the Watmaugh Road Bridge Replacement (Project). The NOP was received in our office on August 13, 2012.

DFG is identified as a Trustee Agency pursuant to the California Environmental Quality Act (CEQA) Section 15386 and is responsible for the conservation, protection, and management of the State's biological resources. DFG is submitting comments on the NOP as a means to inform the Lead Agency of our concerns regarding sensitive resources which could potentially be affected by the Project.

The Project proposes to replace the existing bridge where Watmaugh Road crosses Sonoma Creek with a new bridge consisting of a two span pre-stressed concrete box girder that would be approximately 185 feet long and 32 feet wide. To construct the new bridge, Cast-In-Drilled-Hole (CIDH) concrete piers would be drilled into the banks of the creek at the locations of the abutments and at the center pier, with the number and size of the CIDH piers to be determined prior to construction, based upon the results of a geotechnical report. Additional rock slope protection (RSP) may be included with the proposed bridge replacement. Prior to removal of the existing bridge, a debris catching platform would be constructed under the bridge. The platform would be supported by the existing structure over the water and would function to prevent concrete debris from falling into the creek during removal of the existing bridge deck. Vegetation removal will be kept to the minimum necessary to complete the Project and will occur during the fall and winter to avoid the migratory bird nesting season.

California Freshwater Shrimp

The NOP indicates that California freshwater shrimp (*Syncaris pacifica*) have been observed within the Project site. California freshwater shrimp are federally and state listed as endangered, occurring only in a limited number of lowland streams in Marin, Sonoma and Napa counties. Freshwater shrimp habitat requirements include undercut banks,

exposed roots, woody debris and overhanging vegetation. Due to these specific habitat requirements, DFG recommends that the proposed Project include the following design considerations:

- The County should perform a hydraulic analysis of bridge abutment and pier locations in order to include design elements that would minimize scour that may negatively affect existing freshwater shrimp habitat, including pools and undercut banks.
- Bridge abutment and pier locations should avoid low velocity pools and run habitats occupied by shrimp including all areas with undercut banks or vegetation overhanging into the water.

DFG also recommends the following mitigation measures be included during the construction phase of the project:

- Prior to the onset of work at the Project site, a DFG- and U.S. Fish and Wildlife Service (USFWS)-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the shrimp and its habitat, the importance of the shrimp and its habitat, the general measures that are being implemented to conserve the shrimp as they relate to the work site, and the work site boundaries where construction may occur.
- Only DFG- and USFWS-approved biologists shall participate in the capture, handling, and monitoring of shrimp. This biologist should be on-site during installation of dewatering systems, work pads and temporary culverts to insure that harm to freshwater shrimp is minimized. The biologist should also be on-site during any other project phase that may impact shrimp habitat. DFG- and USFWS-approved biologist shall be present at the work site until such time as all removal of shrimp, instruction of workers, and habitat disturbance associated with the Project have been completed. The DFG- and USFWS-approved biologist shall have the authority to halt any action that might result in the loss of any shrimp or its habitat. If work is stopped, the DFG- and USFWS-approved biologist shall immediately notify DFG and USFWS.
- Care shall be taken during the placement or movement of materials on the stream banks to prevent any damage to undercut stream banks and to minimize damage to any streamside vegetation. Streamside vegetation overhanging into pools or runs shall not be removed, trimmed, or otherwise modified.
- No dumping of dead trees, yard waste, debris or brush shall occur in shrimp streams, which may result in oxygen depletion of aquatic systems.
- If any freshwater shrimp habitat, including streamside vegetation overhanging pools, or undercut banks, must be modified in order to complete the Project, a qualified stream restoration ecologist should prepare a Riparian Replanting and Stream Restoration Plan in order to return freshwater shrimp habitat to pre-project conditions.

Western Pond Turtle

Western pond turtles are known to occur within Sonoma Creek, basking on the banks and fallen logs, and nesting in the upper riparian area. A pre-construction survey for western pond turtles should be conducted prior to beginning work by a DFG-approved qualified biologist. This survey should include a focused survey for adult turtles and nest sites. Any adults found within the work area should be relocated to suitable off-site habitat by a qualified biologist. Nest sites discovered during the pre-construction survey or anytime during construction shall be avoided until vacated, as determined by a qualified biologist. On-going monitoring during construction should occur to ensure turtles have not moved back into the area and that they are not being impacted by Project activities.

Nesting Birds

If any nesting birds are documented within or adjacent to the Project area, DFG recommends that prior to any Project activities, protective buffers be established surrounding the nest to avoid "take." Project-related activities requiring buffers to avoid disturbance include, but are not limited to, equipment staging, ground-disturbing and construction activities, coffer dam installation, and tree pruning and removal. At minimum, buffers of 50 feet for small songbirds and 500 feet for larger species (e.g. threatened and endangered species, and all raptors, including both diurnal and nocturnal species) designated by the biologist shall be avoided until the nests have been vacated.

California Endangered Species Act

Please be advised that a California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit.

Lake and Streambed Alteration Agreement

Each of the three Alternatives for the Project proposes a change to the bed, channel, or bank (which may include associated riparian resources) of Santa Rosa Creek and will require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of an LSAA is subject to CEQA. DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the LSAA notification process, please access our website at <http://www.dfg.ca.gov/habcon/1600/> or to request a notification package, contact the Lake and Streambed Alteration Program at (707) 944-5520.

Mr. Rich Stabler
September 4, 2012
Page 4

Biological Assessment

Please provide a complete assessment (including but not limited to type, quantity and locations) of the habitats, flora and fauna within and adjacent to the project area, including endangered, threatened, and locally unique species and sensitive habitats. The assessment should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the Project. Rare, threatened and endangered species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, Section 15380). DFG recommended survey and monitoring protocols and guidelines are available at <http://www.dfg.ca.gov/wildlife/species/surveymonitor.html>.

DFG appreciates the opportunity to comment on the Watmaugh Road Bridge Replacement Project. DFG staff is available to meet with you to further clarify our comments and provide technical assistance on any changes necessary to protect resources. If you have any questions, please contact Mr. Adam McKannay, Environmental Scientist, at (707) 944-5534; or Ms. Karen Weiss, Senior Environmental Scientist, at (707) 944-5525.

Sincerely,



 Scott Wilson
Acting Regional Manager
Bay Delta Region

cc: State Clearinghouse

ATTACHMENT D-6

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

RECEIVED

EDMUND G. BROWN, Jr., Governor

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-6053
FAX (510) 286-5559
TTY 711

AUG 22 2012
PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA



*Flex your power!
Be energy efficient!*

August 21, 2012

SON012592
SON-12-39.4

Mr. Rich Stabler
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Mr. Stabler:

Watmaugh Road Bridge Replacement Project – Notice of Preparation

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Watmaugh Road Bridge Replacement project. The following comments are based on the Notice of Preparation (NOP). As the lead agency, the County of Sonoma (County) is responsible for all project mitigation, including any needed improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. This information should also be presented in the Mitigation Monitoring and Reporting Plan of the environmental document. Since an encroachment permit is required for work in the state right of way (ROW), and Caltrans will not issue a permit until our concerns are adequately addressed, we strongly recommend that the County work with both the applicant and Caltrans to ensure that our concerns are resolved during the California Environmental Quality Act (CEQA) process, and in any case prior to submittal of a permit application. Further comments will be provided during the encroachment permit process; see the end of this letter for more information regarding encroachment permits.

Traffic Impact Study

We encourage the County to coordinate preparation of the Traffic Impact Study (TIS) with our office, and we would appreciate the opportunity to review the scope of work. Please include the information detailed below in the TIS to ensure that project-related impacts to state roadway facilities are thoroughly assessed. The Caltrans "Guide for the Preparation of Traffic Impact Studies" should be reviewed prior to initiating any traffic analysis for the project; it is available at the following website: http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

The TIS should include:

1. Vicinity map, regional location map, and a site plan clearly showing project access in relation to nearby state roadways. Ingress and egress for all project components should be clearly identified. The state ROW should be clearly identified.
2. The maps should also include local roads and intersections, parking, and transit facilities.
3. Project-related trip generation, distribution, and assignment. The assumptions and methodologies used to develop this information should be detailed in the study, and should be supported with appropriate documentation.
4. Average Daily Traffic, AM and PM peak hour volumes and levels of service (LOS) on all significantly affected roadways, including crossroads and controlled intersections for existing, existing plus project, cumulative and cumulative plus project scenarios. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect study area roadways and intersections. The analysis should clearly identify the project's contribution to area traffic and degradation to existing and cumulative LOS. Lastly, the Caltrans LOS threshold, which is the transition between LOS C and D, and is explained in detail in the *"Guide for the Preparation of Traffic Impact Studies"*, should be applied to all state facilities. Please note, Caltrans considers LOS by itself as an inadequate measure of effectiveness (MOE) for describing traffic operational conditions since it may actually mask a deficient condition on one or more approaches. As for intersection analysis the accepted MOEs used by Caltrans include flow (output), average control delay, queue (length or number of vehicles), and Volume/Capacity (V/C) ratio. For freeway and ramp operations, flow (output), speed, and travel time/delay are the accepted MOEs in addition to LOS.
5. Schematic illustration of traffic conditions including the project site and study area roadways, trip distribution percentages and volumes as well as intersection geometrics, i.e., lane configurations, for the scenarios described above.
6. Please provide a copy of the Traffic Management Control Plan.

Cultural Resources

The project environmental document must include documentation of a current archaeological record search from the Northwest Information Center of the California Historical Resources Information System if construction activities are proposed within state ROW. Current record searches must be no more than five years old. Caltrans requires the records search, and if warranted, a cultural resource study by a qualified, professional archaeologist, to ensure compliance with CEQA, Section 5024.5 of the California Public Resources Code and Volume 2 of the Caltrans Standard Environmental Reference (<http://ser.dot.ca.gov>). These requirements, including applicable mitigation, must be fulfilled before an encroachment permit can be issued for project-related work in state ROW; these requirements also apply to National Environmental Policy Act documents when there is a federal action on a project. Work subject to these requirements includes, but is not limited to: lane widening, channelization, auxiliary lanes, and/or modification of existing features such as slopes, drainage features, curbs, sidewalks and driveways within or adjacent to state ROW.

Encroachment Permit

Please be advised that work that encroaches onto the state ROW requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans, clearly indicating state ROW, must be submitted to: Office of Permits, California Department of Transportation, District 4, P.O. Box 23660, Oakland, CA 94623-0660. Traffic-related mitigation measures will be incorporated into

the construction plans during the encroachment permit process. See the following website link for more information: <http://www.dot.ca.gov/hq/traffops/developserv/permits/>.

Please forward at least one hard copy and one CD of the environmental document, along with the TIS including Technical Appendices, and a complete plan set as soon as they are available.

Please feel free to call or email Sandra Finegan at (510) 622-1644 or sandra_finegan@dot.ca.gov with any questions regarding this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Alm", with a stylized flourish at the end.

ERIK ALM, AICP
District Branch Chief
Local Development – Intergovernmental Review

LETTER E

CITIZENS FOR THE PRESERVATION OF SONOMA HISTORIC BRIDGES
P.O. BOX 298
SONOMA, CA 95476

November 13, 2012

Rich Stabler
Sonoma County PRMD
2550 Ventura Ave.
Santa Rosa, CA 95403

Re: Sonoma County Historic District Bridge Replacements
Watmaugh Road Bridge Replacement Project

Dear Rich,

In doing research for the Watmaugh Road Bridge project, we came across these documents on other bridges that are slated for replacement in the Historic Bridge District.

1. Chalk Hill Road Bridge over Maacama Creek and the plans to replace
2. Sonoma County Transit and Project listings.

E - 1

Section 5C-6 specifically states that there are no current proposals or plans to remove other bridges zoned HD. This is completely contrary to what is stated in the above documents.

Please address these documents and the actual plans to replace the other bridges within the Historic Bridge District in you EIR comments.

I would hope that the one thing that we would be able to count on is the total transparency and truth in the EIR and that the County is forthcoming with honesty and integrity on these projects.

Sincerely,



Gail Johnson

Cc: Rose Zoia
Valerie Brown

From: Sonoma County Project Listings, Transit Projects, dated September 28, 2012

Sonoma County Project Listings

(all dollars are in thousands)

Roadway Projects

Local Roadway Projects

Replace Geysers Road Bridge 20C0005

In Sonoma County: Bridge replacement: single lane bridges in Sonoma County with two lane bridge (Geysers Road Bridge 20C0005)

Project Name:

Description:

Sponsor: Sonoma County Implementing Agency: Sonoma County

TIP ID:

SON090001 County: Sonoma System: LOCAL RD RTP ID: 22490 CTIPS ID:

20600004334 Revision #: 2011-15

Air Quality Exempt Code: 1.02 - EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature

Route: Post Mile From: Post Mile To: Toll Credits: \$ 1,754,910

Fund Source

Prior

Years

Future

Years

Total

Phase FY 10/11 FY 11/12 FY 12/13 FY 13/14 FY 14/15 Programmed

PE HBP \$ 443 \$ 443

PE OTHER LOCAL \$ 57 \$ 57

ROW HBP \$ 100 \$ 100

CON AC \$ 5,000 \$ 5,000

CON HBP \$ 5,000 \$ 5,000

Total Programmed Funding: \$ 500 \$ 100 \$ 5,000 \$ 5,000 \$ 10,600

Replace Chalk Hill Road Bridge 20C0242

In Sonoma County - Replace existing bridge no. 20C0242, on Chalk Hill Rd, Over Maacama Creek, 1 Mi S of HWY (spandrel arch bridge with approach spans with new bridge)

Project Name:

Description:

Sponsor: Sonoma County Implementing Agency: Sonoma County

TIP ID:

SON090025 County: Sonoma System: LOCAL RD RTP ID: 22490 CTIPS ID:

20600004565 Revision #: 2011-23

Air Quality Exempt Code: 1.02 - EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature

Route: Post Mile From: Post Mile To: Toll Credits: \$ 1,491,100

Fund Source

Prior

Years
Future
Years
Total

Phase FY 10/11 FY 11/12 FY 12/13 FY 13/14 FY 14/15 Programmed

PE HBP \$ 221 \$ 531 \$ 753

PE OTHER LOCAL \$ 29 \$ 69 \$ 97

ROW HBP \$ 200 \$ 200

CON HBP \$ 6,000 \$ 6,000

Total Programmed Funding: \$ 250 \$ 600 \$ 6,200 \$ 7,050

BRIDGE NO. 20C0248, LAMBERT BRIDGE RD OVER DRY CRK

HBP: In Sonoma: Replace existing through truss bridge (Bridge No. 20C0248, Lambert Bridge Road, Over Dry Creek, 0.4 Mi W of Dry Creek Rd.), that is in poor condition and has seismic deficiencies with new bridge.

Project Name:

Description:

Sponsor: Sonoma County Implementing Agency: Sonoma County

TIP ID:

SON090026 County: Sonoma System: LOCAL RD RTP ID: 22490 CTIPS ID:

20600004563 Revision #: 2011-23

Air Quality Exempt Code: 1.02 - EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature

Route: Post Mile From: Post Mile To: Toll Credits: \$ 57,350

Fund Source

Prior

Years

Future

Years

Total

Phase FY 10/11 FY 11/12 FY 12/13 FY 13/14 FY 14/15 Programmed

PE HBP \$ 443 \$ 443

PE OTHER LOCAL \$ 57 \$ 57

ROW HBP \$ 100 \$ 100

CON BR-SEISMIC \$ 574 \$ 574

CON HBP \$ 4,426 \$ 4,426

Total Programmed Funding: \$ 500 \$ 5,100 \$ 5,600

2011

BACKGROUND

The Sonoma County Department of Transportation and Public Works (TPW) proposes to build a new bridge to modern standards parallel to the existing bridge on Chalk Hill Road over the Maacama Creek. The new bridge would have two traffic lanes and 5 foot shoulders in order to accommodate vehicle traffic in both directions and give some measure of safety to bicyclists and pedestrians. The new bridge would be built to current seismic safety standards and to be able to carry vehicles up to the legal load limit safely.

The existing bridge, which is almost 100 years old, would remain in place due to its historic value. The existing bridge would become permanently closed to vehicular traffic but could remain as an optional path for bicyclists and pedestrians.



At this point in time there are Federal Funds allocated to provide 100% funding of this bridge replacement. The initial allocation is intended to cover the engineering design & environmental permitting. Once this work is completed, the state has indicated that construction funding will be provided. A public information meeting was held on 24 Aug., 2012 where 40+ residents & property owners participated in the discussion of the project. It was decided to hold another meeting on October 18th at 6:30 pm in the Alexander Valley meeting hall where participants will be given an opportunity to participate in a discussion on whether to move forward with the proposed project or not.

Because of the long term ramifications of moving forward or abandoning the project, it is important to have input from as many users of this corridor as possible. All users of the bridge are encouraged to attend the meeting and be heard.

OPPOSITION TO THE PROJECT

Many residents living on Chalk Hill Road and in particular those near to the existing bridge are opposed to the project. Reasons stated are generally related to the effects that a one lane bridge brings to traffic patterns versus a two lane bridge. Residents feel that because drivers must slow down at the existing bridge that it creates a safer environment for the children, particularly when waiting for or being dropped off by the school bus. They have also pointed out that although the wider lanes and shoulders on the new bridge may make crossing safer for bicyclists and pedestrians on the bridge itself there are large portions of the road that are narrow and without shoulders and they feel that the new bridge might give a false impression of safety to those wishing to bicycle along the road.

Other reasons stated are that adding the new bridge will increase the amount of through truck and bicycle traffic on the road and it is felt by some that this is not desirable.

Additionally there are many that feel that a larger, two lane bridge will change the country feel of the road in a negative way.



RISKS OF ABANDONING THE PROJECT

While this bridge has withstood almost 100 years of use there are indicators that it is nearing the end of its useable life span. No-one can predict how much longer this bridge will last however it is listed by Caltrans as Structurally Deficient (SD) and Functionally Obsolete (FO). It is functionally obsolete in large part due that fact that it only allows traffic in one direction at a time while it is in a two directional roadway. The FO status will remain on this bridge forever as a one lane bridge.

Of more concern is what would happen if this bridge failed due to a seismic event or just old age. Currently there are approximately 800 vehicles traveling over this bridge each day. The detour around for those passing through or needing access to homes on one side or the other of the bridge is 25 miles. Further, while there is money allocated now for a replacement (parallel) bridge, if the project does not move forward now that money will be returned to the state. In the event of a failure without a new design and funding already in place an emergency bridge would be installed. In this case residents would have no design input and speed and cost would be the overriding factors therefore the new bridge would be of a utilitarian design.

It has taken TPW almost 20 years to get funding for this bridge replacement. The current 100% funding is not the norm. This is composed of approximately 88% Highway Bridge Program (HBP) funds and 12% federal "toll credit" funds. Because this project was approved before the new MAP-21 program was enacted it is eligible for "toll credit" funds which make up the gap between the cost of the bridge and the approximately 88% that the HBP provides. These "toll credit" funds are special federal matching funds that can only be used on bridges that are considered off the "Federal Aid" system. Unfortunately this bridge has a functional classification that the transportation bill MAP-21 changes from OFF to ON system rendering it ineligible for "toll credit" monies in the future. If this project is terminated all funds allocated to it will be returned and reallocated to other projects throughout California. If the project is ever reinitiated it will have to start at the very beginning of the process and it will be under whatever transportation bill is in effect at that time. The odds of getting 100% funding in the future are very slim.

The unincorporated portion of Sonoma County has over 320 bridge structures to maintain. There are dozens of bridges requiring attention now and likely it will always be that way. The County simply does not have the budget to undertake large capital projects without maximizing Federal and /or State assistance.

Please check back next week for photo simulations of what a new downstream bridge would look like.

Nov 8, 2012

Rich Stabler
Son. County Permit + Manage. Dept.
2550 Ventura Ave
Santa Rosa, CA 95403

Dear Mr. Stabler,

F-1

Please replace the Watmough bridge
asap. The alignment is awful, it's too
narrow, etc. How can that ugly little
bridge have enough historical significance
to warrant such lengthy discussion. Please,
build a new bridge.

Respectfully,

Greg Rose

1872 E. Napa St.

Sonoma, CA 95476

RECEIVED

NOV 13 2012

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

LETTER G



November 12, 2012

Supervisor Valerie Brown
Supervisor David Rabbitt
Supervisor Shirlee Zane
Supervisor Mike McGuire
Supervisor Efren Carrillo

Sonoma County Board of Supervisors
575 Administration Drive, Room 100A
Santa Rosa, CA 95403-2887

RE: Demolition of the Historic Watmaugh Road Bridge and Bridge Replacement Project

Dear Board Members,

At its October 17, 2012, meeting, the Board of Directors of the Sonoma League (League) for Historic Preservation, representing approximately 227 members, considered the County's proposed demolition of the historic Watmaugh Road Bridge and the construction of a replacement bridge. Because of its historic value to the engineering technology of the early 1920's and its contribution to the County's first transportation plan, in 1981, the Sonoma County Board of Supervisors designated the Watmaugh Road Bridge, built in 1929, as Sonoma County Landmarks #103. After evaluating the benefits of preserving this Warren steel pony truss bridge, the League voted to support the Citizens for the Preservation of Sonoma Historic Bridges and the preservation of this unique and special historic resource. When the County's historic landmarks are destroyed, the valley loses its charm and authenticity, which are treasured by all of Sonoma Valley residents and visitors alike.

Furthermore, the National Trust for Historic Preservation recently selected the Town of Sonoma as one of its 2011 Dozen Distinctive Destinations. (<http://www.preservationnation.org/about-us/press-center/press-releases/2011/new-bedrod.html>) The article refers to Sonoma's establishment and "winding country roads and family-owned vineyards" as the focus of its historic charm. It is obvious to the citizens of Sonoma Valley that there are distinct linkages among efforts at historic preservation of treasures such as the Watmaugh Road Bridge, a desirable place to live, tourism and a healthy economy, and distinctions such as the one granted to the Town of Sonoma by the National Government.

G - 1 We urge the Board and County staff to uphold the County's own regulation to: "Protect structures and sites that provide significant examples of architectural styles of the past, or which are unique and irreplaceable assets to the County and its communities" (Sonoma County Landmarks Commission By-laws).

G - 2 In addition, the Board is opposed to the alternative downstream parallel bridge, which would destroy the scenic, rural character of the surrounding environment, alter the rural ambiance of Watmaugh Road, destroy private property irreparably, and leave the unpurposed, unmaintained historic bridge to demolish by decay and neglect, with a bridge and approaches going to nowhere. This alternative is simply unacceptable.

G - 3 While County staff has applied for public funds to build a replacement bridge, funding is available for preservation, including retrofitting and rehabilitation, through the Highway Bridge Program (HBP) and the new federal "Moving Ahead for Progress in the 21st Century Act" (MAP-21). The League requests that the County pursue funding for the preservation of the Watmaugh Road Bridge and seek from Caltrans the necessary exceptions as allowed by Caltrans

G - 4 The Napa County citizens and governmental agencies and staff have worked together and have gone to considerable efforts to preserve their County's historic bridges. The citizens of Sonoma Valley and the City of Sonoma are proud of their efforts to preserve their historic structures and heritage. We expect no less of Sonoma County's representatives and staff.

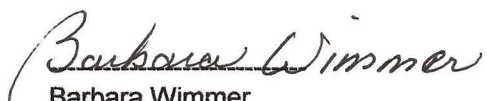
The League's Preservation Committee has reviewed the Draft Environmental Impact Report for the Watmaugh road Bridge Over Sonoma Creek Replacement Project (DEIR) and found the DEIR to be deficient in many areas including, but not necessarily limited to:

- G - 5 • Does not point out alternative routes more appropriate for heavy truck traffic than Watmaugh Road, thereby allowing the preservation of the Watmaugh Road Bridge meeting seismic retrofitted standards for lower weights;
- G - 6 • Lacks design plans and detailed cost analysis for the proposed preservation of the Watmaugh Road Bridge in order to make an informed decision;
- G - 7 • Lacks design plans and detailed engineering studies and cost analysis for the seismic retrofit and rehab of the historic bridge; and
- G - 8 • Schematic site plans for the replacement bridge and downstream bridge are inaccurate, incomplete, and misleading.

The *California Environmental Quality Act Guidelines* provides standards for adequacy of an EIR and require that an EIR be prepared with a sufficient degree of analysis to provide information that enables an informed decision (Section 15151).

G - 9 The League requests that you spend the time it takes to increase public confidence that your Board and staff care about historic resources and preservation in Sonoma Valley and take whatever action is necessary to seriously review this matter independently and diligently as it affects all of us and demolition, whether by the wrecking ball or neglect is irreversible. Thank you for your attention. If you should have any questions or comments, please contact Patricia Cullinan at preservationcommittee@sonomaleague.org.

Thank you,



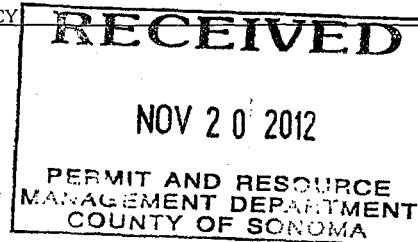
Barbara Wimmer
President
Sonoma League for Historic Preservation

CC.

Phillip Demery, Director, Sonoma County Department of Transportation and Public Works
Thomas F. O'Kane, Jr. Deputy Director, Sonoma County Department of Transportation and Public Works
Rich Stabler, Environmental Specialist, Sonoma County Permit and Resource Management Department
Sonoma Valley Citizens Advisory Committee
Linda Kelly-City of Sonoma Manager
City Council -c/o Linda Kelly Sonoma
Sonoma County Landmarks Commission
Friends of Healdsburg Memorial Bridge
Historic American Landscape Survey Northern California Chapter
HALS - Northern California Chapter
The Cultural Landscape Foundation
The California Preservation Foundation
Cynthia Heitzman
State Historic Preservation Office
Mr. Milford Wayne Donaldson, SHPO
NPS Pacific West Regional Office, San Francisco
Elaine Jackson-Retondo
National Trust Regional Office
San Francisco Field Office
Anthony Veerkamp
Jay Correia, Supervisor, Registration Programs,
 California State Office of Historic Preservation
National Trust for Historic Preservation Washington, D.C.
Elizabeth Merritt
Paul Edmondson, Vice President and General Counsel, NTHP,
David Brown, Executive Vice President and Chief Preservation Officer, NTHP,

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-6053
FAX (510) 286-5559
TTY 711



*Flex your power!
Be energy efficient!*

November 13, 2012

SON012592
SON-12-39.4
SCH# 2012082037

Mr. Rich Stabler
Sonoma County
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Mr. Stabler:

Watmaugh Road Bridge Replacement Project – Draft Environmental Impact Report

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process for the Watmaugh Road Bridge Replacement Project. The following comments are based on the Draft Environmental Impact Report (DEIR).

Traffic Impact Analysis

H - 1

On page 3-1, 2nd paragraph, ~~Traffic Technical Memorandum for the Proposed Bridge Replacement~~ it states the Watmaugh Road traffic volumes were 531 vehicles for the AM peak hour and 329 vehicles for the PM peak hour. During the Watmaugh Road Bridge Replacement construction, the majority of those vehicles will be detoured through the Leveroni Road and State Route (SR) 121.

H - 2

Because the existing SR-121 already operates at Level of Service (LOS) F during the peak hours as shown in Table 2 of Traffic Technical Memorandum (page 3), the diverted trips from the project would exacerbate the congestion at the intersections of State Route (SR) 12 /SR-121 and SR-121/ SR-116. The proposed detour capacity will be restrained by the all-way stop controlled Arnold Drive/SR-116/SR-121 intersection, and the congestion queues at the intersection might be substantial.

Please provide us intersection LOS analyses and queue length analyses for the SR-12/SR-121 and Arnold Drive/SR-116/SR-121 intersections.

H - 3

Transportation Management Plan (TMP)

If it is determined that traffic restrictions and detours are needed on or affecting State highways, a TMP or construction Traffic Impact Study may be required of the developer for approval by Caltrans prior to construction. TMPs must be prepared in accordance with Caltrans' *Manual on Uniform Traffic Control Devices*. Further information is available for download at the following web address:

H - 3

<http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd2012/Part6.pdf>. Please ensure that such plans are also prepared in accordance with the transportation management plan requirements of the corresponding jurisdictions.

H - 4


Encroachment Permit

Please be advised that any work or traffic control that encroaches onto the State Right of Way (ROW) requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to the address below. Traffic-related mitigation measures should be incorporated into the construction plans during the encroachment permit process. See the website link below for more information. <http://www.dot.ca.gov/hq/traffops/developserv/permits/>

David Salladay, District Office Chief
Office of Permits
Caltrans District 4
P.O. Box 23660
Oakland, CA 94623-0660

Please feel free to call or email Luis Melendez at (510) 286-5606 or luis_melendez@dot.ca.gov with any questions regarding this letter.

Sincerely,



ERIK ALM, AICP
District Branch Chief
Local Development – Intergovernmental Review

c: State Clearinghouse

LETTER I

**CITIZENS FOR THE PRESERVATION OF SONOMA HISTORIC BRIDGES
P. O. BOX 298
SONOMA, CA 95476**

November 14, 2012

Rich Stabler, Environmental Specialist
Sonoma County Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

and

Supervisor Valerie Brown
Supervisor David Rabbitt
Supervisor Shirlee Zane
Supervisor Mike McGuire
Supervisor Efren Carrillo

Sonoma County Board of Supervisors
575 Administration Drive, Room 100A
Santa Rosa, CA 95403

RE: Comments
Draft Environmental Impact Report (DEIR)
Watmaugh Road Bridge Over Sonoma Creek Replacement Project September, 2012

Dear Mr. Stabler:

This letter is in response to the *Draft Environmental Impact Report (DEIR) Watmaugh Road Bridge Over Sonoma Creek Replacement Project September, 2012*. The purpose of this letter is to bring to your attention the following deficiencies, inadequacies, contradictions and erroneous of the DEIR in addressing cumulative impacts as they relate to the proposed project and the seismic retrofit/rehabilitation of the historic Watmaugh Road Bridge alternative project.

The California Environmental Quality Act (CEQA) and Case Law

CEQA requires that an Environmental Impact Report (EIR) "must discuss significant cumulative impacts. Cumulative impacts are two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. Thus, an EIR's cumulative impacts discussion should encompass 'past, present, and probable future projects.' The purpose of this requirement is to avoid 'piecemeal' approval of projects without consideration of the total environmental effects the projects would have when taken together. *San Joaquin Raptor/Wildlife Rescue Ctr. V County of Stanislaus*, 27, Cal. App. 4th 713, 740 (1994). (Curtin and Talbert *Curtin's California Land Use and Planning Law*, 2004) (CEQA Guidelines Sections 15355, 15130(b)(1)(A), and 15355)

Cumulative Impacts

- I - 1 CEQA does not allow for speculation and contradictory information. The discussion in Section 5C.4 Cumulative Impacts of the Watmaugh Road Bridge Replacement Project DEIR is speculative and contradicts information available elsewhere to the public. In fact, the
- I - 2 discussion and Table 5C-2. Sonoma County Landmark Bridge Project Status lack substantial evidence and verifiable data. It presents a "piecemeal", speculative, and inaccurate picture of probable future projects relating to the demolition, either by the wrecking ball or neglect, of other Sonoma County historic landmark bridges and construction of parallel bridges within the historic bridge thematic district established by the Board of
- I - 3 Supervisors Resolution 98-0046. It fails to address the total environmental effects the proposals, particularly Big Sulphur Creek Geysers Road Bridge, Chalk Hill Bridge (Maacama Bridge), and the Lambert Road Bridge and the Watmaugh Road Bridge would have when taken together.

CEQA says an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence. A list of past, present, and probable future projects producing related or cumulative impacts are elements to an adequate discussion of significant cumulative impacts.

- I - 4 Table 5C-2. Section 5C.4 Cumulative Impacts of the DEIR speculates on the construction of parallel bridges relative to the three aforementioned bridges, with the "old" bridge to remain
- I - 5 in place to be destroyed by neglect. If these historic bridges are demolished one at a time, over time, by the wrecking ball and/or by neglect, it would cumulatively have a significant impact on the thematic historic bridge district. However, the DEIR discussion focuses on the
- I - 6 impact to the HD zoning of each bridge, rather than the **whole of the historic bridge thematic district**. The discussion is skewed, so that the DEIR can conclude each bridge qualifies for HD zoning individually and the removal of a bridge does not make the remaining bridges ineligible for HD zoning. The DEIR fails to address the removal, piece by piece of bridges from the historic bridge thematic district, and therefore, fails to address with factual evidence in the record the cumulative impacts.
- I - 7 The DEIR Table 5C-2 presents that none of the other remaining bridges with HD zoning or in the thematic historic bridge district will be demolished. Big Sulphur Creek Bridge, Chalk Hill Bridge, and Lambert Road Bridge, will remain, with construction of a new bridge (parallel) downstream. However, County staff said there are no plans for these projects, he said there were none.
- I - 8 Furthermore, these three bridges have been found to be eligible for the National Register. In *The Bridge of Sonoma County 2009, Strategic Planning*, they are listed with National Significance. So, **why is the County not seeking Federal funds for seismic retrofit/rehab?**
- I - 9 In addition, the DEIR goes on to say that the Calabazas Bridge (O'Donnell Lane) is National Register eligible and has funding available for maintenance and rehabilitation: However, Table 6a in *The Bridge of Sonoma County 2009, Strategic Planning*, shows the Calabazas Bridge to be of local significance only, as is indicated of the Watmaugh Bridge. Therefore, one can conclude that the Watmaugh Bridge can receive federal funding.

Contradictory to Table 5C-2., Sonoma County Landmark Bridge Project Status, Section 5C.4 Cumulative Impacts the **Sonoma County Project Listings, Transit Projects, dated September 28, 2012** states that the Big Sulphur Creek Geysers Road Bridge, the Chalk Hill Bridge (Maacama Bridge) and the Lambert Bridge are scheduled to be demolished and replaced as follows:

Sonoma County Project Listings

(all dollars are in thousands)

Roadway Projects

Local Roadway Projects

Replace Geysers Road Bridge 20C0005

In Sonoma County: Bridge replacement: single lane bridges in Sonoma County with two lane bridge (Geysers Road Bridge 20C0005)

Project Name:

Description:

Sponsor: Sonoma County Implementing Agency: Sonoma County

TIP ID:

SON090001 County: Sonoma System: LOCAL RD RTP ID: 22490 CTIPS ID:

20600004334 Revision #: 2011-15

Air Quality Exempt Code: 1.02 - EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature

Route: Post Mile From: Post Mile To: Toll Credits: \$ 1,754,910

Fund Source

Prior

Years

Future

Years

Total

Phase FY 10/11 FY 11/12 FY 12/13 FY 13/14 FY 14/15 Programmed

PE HBP \$ 443 \$ 443

PE OTHER LOCAL \$ 57 \$ 57

ROW HBP \$ 100 \$ 100

CON AC \$ 5,000 \$ 5,000

CON HBP \$ 5,000 \$ 5,000

Total Programmed Funding: \$ 500 \$ 100 \$ 5,000 \$ 5,000 \$ 10,600

Replace Chalk Hill Road Bridge 20C0242

In Sonoma County - Replace existing bridge no. 20C0242, on Chalk Hill Rd, Over Maacama Creek, 1 Mi S of HWY (spandrel arch bridge with approach spans with new bridge)

Project Name:

Description:

Sponsor: Sonoma County Implementing Agency: Sonoma County

TIP ID:

SON090025 County: Sonoma System: LOCAL RD RTP ID: 22490 CTIPS ID:

20600004565 Revision #: 2011-23

Air Quality Exempt Code: 1.02 - EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature

Route: Post Mile From: Post Mile To: Toll Credits: \$ 1,491,100

Fund Source

Prior
Years
Future
Years
Total

Phase FY 10/11 FY 11/12 FY 12/13 FY 13/14 FY 14/15 Programmed

PE HBP \$ 221 \$ 531 \$ 753

PE OTHER LOCAL \$ 29 \$ 69 \$ 97

ROW HBP \$ 200 \$ 200

CON HBP \$ 6,000 \$ 6,000

Total Programmed Funding: \$ 250 \$ 600 \$ 6,200 \$ 7,050

BRIDGE NO. 20C0248, LAMBERT BRIDGE RD OVER DRY CRK

HBP: In Sonoma: Replace existing through truss bridge (Bridge No. 20C0248, Lambert Bridge Road, Over Dry Creek, 0.4 Mi W of Dry Creek Rd.), that is in poor condition and has seismic deficiencies with new bridge.

Project Name:

Description:

Sponsor: Sonoma County Implementing Agency: Sonoma County

TIP ID:

SON090026 County: Sonoma System: LOCAL RD RTP ID: 22490 CTIPS ID:

20600004563 Revision #: 2011-23

Air Quality Exempt Code: 1.02 - EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature

Route: Post Mile From: Post Mile To: Toll Credits: \$ 57,350

Fund Source

Prior

Years

Future

Years

Total

Phase FY 10/11 FY 11/12 FY 12/13 FY 13/14 FY 14/15 Programmed

PE HBP \$ 443 \$ 443

PE OTHER LOCAL \$ 57 \$ 57

ROW HBP \$ 100 \$ 100

CON BR-SEISMIC \$ 574 \$ 574

CON HBP \$ 4,426 \$ 4,426

Total Programmed Funding: \$ 500 \$ 5,100 \$ 5,600

2011

Conclusion

I - 11

DEIR Section 5C.4 Cumulative Impacts discussion is erroneous and does not meet the standards of CEQA when addressing cumulative impacts to the historic bridge thematic district. Furthermore, there is considerable opposition in the Chalk Hill Road neighborhood for a parallel replacement bridge.

I - 12

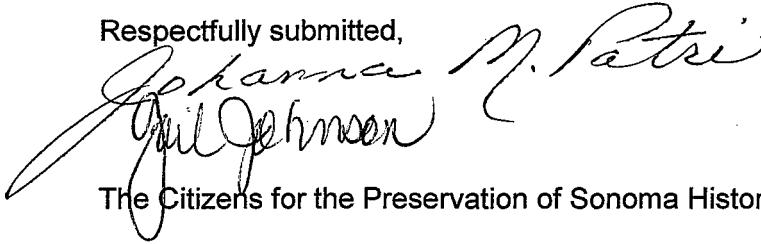
The CPSHB applauds the Sonoma County Board of Supervisors and the Sonoma County Department of Transportation and Public Works staff for restoring and preserving the O'Donnell Lane Bridge in Glen Ellen with the use of federal funds through Caltrans. The CPSHB notes that this historic bridge retains a load limit, as does the historic Watmaugh Road Bridge.

The DEIR cannot state with any amount of certainty that these historic bridges will be preserved; and, therefore, conclude there will be no cumulative impacts.

I - 13

County staff and the Board of Supervisors should work together with the citizens of Sonoma County to preserve the Sonoma County Historic Bridges.

Respectfully submitted,

Handwritten signatures of Johanna M. Patri and Phil Johnson. Johanna's signature is in cursive and appears to be 'Johanna M. Patri'. Phil's signature is also in cursive and appears to be 'Phil Johnson'.

The Citizens for the Preservation of Sonoma Historic Bridges

cc. Sonoma County Counsel

Rose Zoia

Sonoma County Landmarks Commission

ATTACHMENTS

resource. Therefore, the project would have a significant unavoidable impact to historic resources as noted in Section 5B of this EIR (see Section 5B).

5C.4 CUMULATIVE IMPACTS

The following cumulative impacts discussion focuses on whether the impacts of the proposed Project are cumulatively considerable within the context of impacts caused by other past, present, or reasonably foreseeable future projects. The cumulative impact scenario considers other projects within the area of the proposed project that have the potential to contribute to cumulatively considerable impacts.

There are no other past, present, or reasonably foreseeable projects that would contribute to a cumulative impact to land use in the project vicinity.

This discussion of cumulative impacts focuses on the potential of the project to impact the HD zoning of other bridges constituting the historic bridge thematic district established by Board of Supervisors Resolution 98-0046. The findings in Resolution 98-0046 state that the bridges qualify individually and as a thematic district for local historic designation. Because the bridges each qualify individually, the removal and rezoning of the Watmaugh Bridge under the proposed project does not make the remaining bridges ineligible for HD zoning or require their rezoning.

Table 5C-2. Sonoma County Landmark Bridge Project Status

Project Status of Bridges Zoned HD					
Bridge Name	Bridge Number	Sufficiency Rating ¹	Year Designated	Proposal	Status of Environmental Review
Arnold Drive Bridge at Eldridge	20C-213	36.1	1998	No project proposed.	Bridge was repainted in 2002 after Landmarks review and original color (Battleship Gray) was chosen.
Big Sulphur Creek Geysers Road Bridge	20C-005	42.4	1998	Construct new bridge downstream, old bridge to remain.	NEPA initiated. CEQA not yet begun.
Chalk Hill Bridge (Maacama Bridge)	20C-242	49.0	1998	Construct new bridge downstream, old bridge to remain.	CEQA and NEPA not yet initiated.
Clark's Crossing (Annapolis Road Bridge)	20C-141	44.9	1998	Retrofit completed.	Complete.
Guerneville Bridge ²	20C-091	22.5	1998	Non-County. Parallel replacement built in 1998.	Complete
Hacienda Bridge	20C-037	53.5	1998	Retrofit completed in 2000.	Complete
Haupt Creek	20C-224	50.0	1998	No project proposed.	N/A
Lambert Road Bridge	20C-248	4.8	1998	Construct new bridge downstream, old bridge to remain.	CEQA and NEPA not yet initiated.

Project Status of Bridges Zoned HD					
Bridge Name	Bridge Number	Sufficiency Rating ¹	Year Designated	Proposal	Status of Environmental Review
North Fork (Gualala Road) (in Mendocino County)	10C-046	42.5	1998	No project proposed.	N/A
Wohler Road Bridge over the Russian River	20C-155	46.3	1998	Seismic Retrofit	NEPA completed. CEQA not yet initiated.
Calabazas Bridge (O'Donnell Lane)	20C-324	16.7	1981	Rehabilitate existing bridge.	NEPA initiated. CEQA not yet initiated.
Watmaugh Road Bridge (Hopke Bridge)	20C-017	4.0	1981	Replace existing bridge.	NEPA will likely be Categorical Exclusion and CEQA EIR is in Prep.
Monte Rio (Bohemian Highway)	20C-018	36.3	2003	Planning study to determine project.	CEQA and NEPA not yet initiated.
Austin Creek (Old Duncan's Grade)	20C-094	27.0	2003	Bridge damaged and currently closed. Will need to repair in the future.	No project proposed yet.

¹The sufficiency rating is an overall "health" indicator developed by the Federal Highway Administration (FHWA). This number takes into consideration the load capacity of a bridge, the deck geometry, the approaches, the guardrails, and a number of other factors to determine the overall sufficiency of the structure. ² Guerneville Bridge is now used as a bicycle and pedestrian bridge only and is maintained by the Sonoma County Regional Parks Department.

Nor would removal of the Watmaugh Bridge under the proposed project make it more likely that any of the remaining bridges would be removed or replaced. There are no current proposals or plans to remove other bridges zoned HD (see Table 5C-2 above). As illustrated by Table 5C-2, Guerneville Bridge and Calabazas Bridge each have a sufficiency rating less than 22.5. While this is the case, each are National Register eligible and have funding available for maintenance and rehabilitation work and there are no plans for their removal. Some of the of the other HD bridges including the Hacienda Bridge, Clarks Crossing, and the Arnold Drive Bridge have had relatively recent projects that should extend their service life. A few other HD bridges will likely have projects that will construct new parallels bridges located nearby (e.g., Big Sulphur Creek Bridge and the Chalk Hill Bridge). As has been the case in the past, all future projects proposing modifications to or removal of HD bridges would require environmental review and compliance with the procedures established for Landmarks Commission review of proposed work on historic bridges, and would require case-by-case consideration based on the need for and merits of the project by the Board of Supervisors. For these reasons the zoning conflict that is created by the replacement of the Watmaugh Road Bridge would not result in a cumulatively considerable contribution would be a less than significant cumulative impact.

5C.5 CONSISTENCY WITH ADOPTED GENERAL AND REGIONAL PLANS

Section 15125 (d) of the CEQA Guidelines requires that an EIR discuss any inconsistencies between the proposed project and applicable general plans and regional plans.

As part of its CEQA review of an individual bridge project, a lead agency may commission studies to determine whether a bridge meets the criteria for the California Register. If it meets these criteria, the bridge would generally be considered "historically significant" for purposes of CEQA, even if it has not been listed on the California Register. Pictures 6a and 6b show two bridges, Haupt Creek and Wohler Road, that are listed both on the national and local historic designation registry.

Local Historic Designation

Sonoma County, along with the Cities of San Francisco, San Jose, and Los Angeles are among the local agencies in California that have ordinances resulting in the designation of bridges of local significance. The Sonoma County Landmarks Commission, in cooperation with the Department of Transportation and Public Works, can recommend to the Board of Supervisors that certain bridges be given County Landmark status and rezoned to HD (Historic District). Table 6a lists the 13 structures that have been designated HD. Local designation has no direct bearing on the federal NEPA process, but must be considered during the California Environmental Quality Act (CEQA) evaluation process as it pertains to impacts to historic resources when major maintenance, seismic retrofit, or replacement of the bridge is proposed. A Sonoma County ordinance outlines the process for local historic designation. In addition, the Board of Supervisors has adopted procedures for Landmarks Commission review of projects that impact historic bridges.

Historic Designation and Project Development

In order to continue carrying traffic safely, some bridges require a seismic retrofit, seismic replacement or other significant repair or rehabilitation. Special care must be taken with any proposed change to a structure that has been deemed to have historic significance, particularly when the change would result in a visible modification. Complications sometimes arise when the only funding options for bridgework is from state and Federal sources. The complications are particularly evident when total bridge replacement is the only avenue

Table 6a
Bridges with National or Local Significance

Bridge Name & Number	Location	Historic Status
Arnold Drive Bridge, 20C-213	Arnold Drive at Eldridge	Local
Geysers Road Bridge, 20C-005	Geysers Road over Big Sulphur Creek	Local & National
Chalk Hill Road Bridge, 20C-242	Chalkhill Road over Maacama Creek	Local & National
Clark's Crossing, 20C-141	Annapolis Road over Gualala River	Local
Guerneville Bridge, 20C-091	Old State Hwy. 116 over Russian River	Local & National
Hacienda Bridge, 20C-037	River Road over Russian River	Local
Haupt Creek, 20C-224	Stewart's Point/Skaggs Spring Road over Haupt Creek	Local & National
Lambert Road Bridge, 20C-248	Lambert Road over Dry Creek	Local & National
Wohler Road Bridge, 20C-155	Wohler Road over Russian River	Local & National
Austin Creek, 20C-094	Old Duncan's Grade over Austin Creek	Local
Calabazas Bridge, 20C-324	O'Donnell Lane over Calabazas Creek	Local
Watmaugh Bridge, 20C-017	Watmaugh Road over Sonoma Creek	Local
Monte Rio Bridge, 20C-018	Bohemian Highway over Russian River	Local

Sonoma County Project Listings

Roadway Projects

Local Roadway Projects

(all dollars are in thousands)

TIP ID: **SON090001** County: Sonoma System: LOCAL RD RTP ID: 22490 CTIPS ID: 20600004334 Revision #: 2011-15

Sponsor: Sonoma County

Implementing Agency: Sonoma County

Project Name: Replace Geysers Road Bridge 20C0005

Description: In Sonoma County: Bridge replacement: single lane bridges in Sonoma County with two lane bridge (Geysers Road Bridge 20C0005)

Air Quality Exempt Code: 1.02 - EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature

Route: Post Mile From: Post Mile To: Toll Credits: \$ 1,754,910

Phase	Fund Source	Prior Years	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	Future Years	Total Programmed
PE	HBP	\$ 443							\$ 443
PE	OTHER LOCAL	\$ 57							\$ 57
ROW	HBP				\$ 100				\$ 100
CON	AC					\$ 5,000			\$ 5,000
CON	HBP							\$ 5,000	\$ 5,000
Total Programmed Funding:		\$ 500			\$ 100	\$ 5,000		\$ 5,000	\$ 10,600

TIP ID: **SON090025** County: Sonoma System: LOCAL RD RTP ID: 22490 CTIPS ID: 20600004565 Revision #: 2011-23

Sponsor: Sonoma County

Implementing Agency: Sonoma County

Project Name: Replace Chalk Hill Road Bridge 20C0242

Description: In Sonoma County - Replace existing bridge no. 20C0242, on Chalk Hill Rd, Over Maacama Creek, 1 Mi S of HWY (spandrel arch bridge with approach spans with new bridge)

Air Quality Exempt Code: 1.02 - EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature

Route: Post Mile From: Post Mile To: Toll Credits: \$ 1,491,100

Phase	Fund Source	Prior Years	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	Future Years	Total Programmed
PE	HBP	\$ 221		\$ 531					\$ 753
PE	OTHER LOCAL	\$ 29		\$ 69					\$ 97
ROW	HBP							\$ 200	\$ 200
CON	HBP							\$ 6,000	\$ 6,000
Total Programmed Funding:		\$ 250		\$ 600				\$ 6,200	\$ 7,050

TIP ID: **SON090026** County: Sonoma System: LOCAL RD RTP ID: 22490 CTIPS ID: 20600004563 Revision #: 2011-23

Sponsor: Sonoma County

Implementing Agency: Sonoma County

Project Name: BRIDGE NO. 20C0248, LAMBERT BRIDGE RD OVER DRY CRK

Description: HBP: In Sonoma: Replace existing through truss bridge (Bridge No. 20C0248, Lambert Bridge Road, Over Dry Creek, 0.4 Mi W of Dry Creek Rd.), that is in poor condition and has seismic deficiencies with new bridge.

Air Quality Exempt Code: 1.02 - EXEMPT (40 CFR 93.126) - Projects that correct, improve, or eliminate a hazardous location or feature

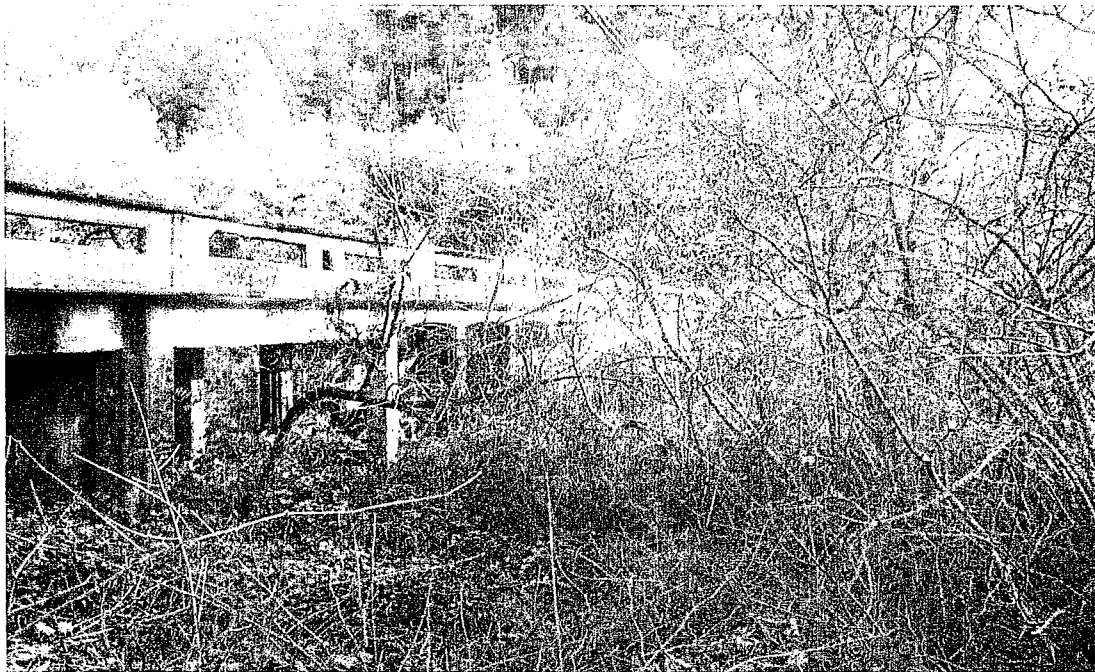
Route: Post Mile From: Post Mile To: Toll Credits: \$ 57,350

Phase	Fund Source	Prior Years	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	Future Years	Total Programmed
PE	HBP			\$ 443					\$ 443
PE	OTHER LOCAL			\$ 57					\$ 57
ROW	HBP							\$ 100	\$ 100
CON	BR-SEISMIC							\$ 574	\$ 574
CON	HBP							\$ 4,426	\$ 4,426
Total Programmed Funding:				\$ 500				\$ 5,100	\$ 5,600

BACKGROUND

The Sonoma County Department of Transportation and Public Works (TPW) proposes to build a new bridge to modern standards parallel to the existing bridge on Chalk Hill Road over the Maacama Creek. The new bridge would have two traffic lanes and 5 foot shoulders in order to accommodate vehicle traffic in both directions and give some measure of safety to bicyclists and pedestrians. The new bridge would be built to current seismic safety standards and to be able to carry vehicles up to the legal load limit safely.

The existing bridge, which is almost 100 years old, would remain in place due to its historic value. The existing bridge would become permanently closed to vehicular traffic but could remain as an optional path for bicyclists and pedestrians.



At this point in time there are Federal Funds allocated to provide 100% funding of this bridge replacement. The initial allocation is intended to cover the engineering design & environmental permitting. Once this work is completed, the state has indicated that construction funding will be provided. A public information meeting was held on 24 Aug., 2012 where 40+ residents & property owners participated in the discussion of the project. It was decided to hold another meeting on October 18th at 6:30 pm in the Alexander Valley meeting hall where participants will be given an opportunity to participate in a discussion on whether to move forward with the proposed project or not.

Because of the long term ramifications of moving forward or abandoning the project, it is important to have input from as many users of this corridor as possible. All users of the bridge are encouraged to attend the meeting and be heard.

OPPOSITION TO THE PROJECT

Many residents living on Chalk Hill Road and in particular those near to the existing bridge are opposed to the project. Reasons stated are generally related to the effects that a one lane bridge brings to traffic patterns versus a two lane bridge. Residents feel that because drivers must slow down at the existing bridge that it creates a safer environment for the children, particularly when waiting for or being dropped off by the school bus. They have also pointed out that although the wider lanes and shoulders on the new bridge may make crossing safer for bicyclists and pedestrians on the bridge itself there are large portions of the road that are narrow and without shoulders and they feel that the new bridge might give a false impression of safety to those wishing to bicycle along the road.

Other reasons stated are that adding the new bridge will increase the amount of through truck and bicycle traffic on the road and it is felt by some that this is not desirable.

Additionally there are many that feel that a larger, two lane bridge will change the country feel of the road in a negative way.



RISKS OF ABANDONING THE PROJECT

While this bridge has withstood almost 100 years of use there are indicators that it is nearing the end of its useable life span. No-one can predict how much longer this bridge will last however it is listed by Caltrans as Structurally Deficient (SD) and Functionally Obsolete (FO). It is functionally obsolete in large part due that fact that it only allows traffic in one direction at a time while it is in a two directional roadway. The FO status will remain on this bridge forever as a one lane bridge.

Of more concern is what would happen if this bridge failed due to a seismic event or just old age. Currently there are approximately 800 vehicles traveling over this bridge each day. The detour around for those passing through or needing access to homes on one side or the other of the bridge is 25 miles. Further, while there is money allocated now for a replacement (parallel) bridge, if the project does not move forward now that money will be returned to the state. In the event of a failure without a new design and funding already in place an emergency bridge would be installed. In this case residents would have no design input and speed and cost would be the overriding factors therefore the new bridge would be of a utilitarian design.

It has taken TPW almost 20 years to get funding for this bridge replacement. The current 100% funding is not the norm. This is composed of approximately 88% Highway Bridge Program (HBP) funds and 12% federal "toll credit" funds. Because this project was approved before the new MAP-21 program was enacted it is eligible for "toll credit" funds which make up the gap between the cost of the bridge and the approximately 88% that the HBP provides. These "toll credit" funds are special federal matching funds that can only be used on bridges that are considered off the "Federal Aid" system. Unfortunately this bridge has a functional classification that the transportation bill MAP-21 changes from OFF to ON system rendering it ineligible for "toll credit" monies in the future. If this project is terminated all funds allocated to it will be returned and reallocated to other projects throughout California. If the project is ever reinitiated it will have to start at the very beginning of the process and it will be under whatever transportation bill is in effect at that time. The odds of getting 100% funding in the future are very slim.

The unincorporated portion of Sonoma County has over 320 bridge structures to maintain. There are dozens of bridges requiring attention now and likely it will always be that way. The County simply does not have the budget to undertake large capital projects without maximizing Federal and /or State assistance.

Please check back next week for photo simulations of what a new downstream bridge would look like.

**CITIZENS FOR THE PRESERVATION OF SONOMA HISTORIC BRIDGES
P. O. BOX 298
SONOMA, CA 95476**

November 14, 2012

Rich Stabler, Environmental Specialist
Sonoma County Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

and

Supervisor Valerie Brown
Supervisor David Rabbitt
Supervisor Shirlee Zane
Supervisor Mike McGuire
Supervisor Efren Carrillo

Sonoma County Board of Supervisors
575 Administration Drive, Room 100A
Santa Rosa, CA 95403

RE: Comments
Draft Environmental Impact Report (DEIR)
Watmaugh Road Bridge Over Sonoma Creek Replacement Project September, 2012

Dear Mr. Stabler:

This letter is in response to the *Draft Environmental Impact Report (DEIR) Watmaugh Road Bridge Over Sonoma Creek Replacement Project September, 2012*. The purpose of this letter is to express to you the deficiencies and inadequacies of the DEIR in addressing various issues as they relate to the proposed project and the seismic retrofit/rehabilitation of the historic bridge alternative project.

INTRODUCTION

California Environmental Quality Act (CEQA) and Case Law

The purpose of the Environmental Impact Report (EIR) is to provide an informational document to inform public agency decision makers and the public of the significant environmental effects of a project, identify mitigation measures to minimize those effects, and design reasonable alternatives to the project. The *California Environmental Quality Act (CEQA) Guidelines* provide standards for adequacy of an EIR and requires that an EIR be prepared with a sufficient degree of analysis to provide information that enables an informed decision. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure (*CEQA Guidelines Sections 15121 and 15151*).

CEQA requires that the precise location and boundaries of the proposed project be shown on a detailed map, preferably topographic. The location of the project shall also appear on a regional map. CEQA requires a statement of the objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to be evaluated in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary (*CEQA Guidelines Section 15124*).

The project description must contain sufficient detail to enable the public and the decision makers to understand the proposed project as well as the environmental impacts of the proposed project. The description cannot narrow the scope of environmental review or minimize the project's impacts on the environment. (*Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 36.)

CEQA does not permit mitigation measures formulated based on future studies or plans after certification of the EIR or after project approval. **Only future studies required by a mitigation measure** that would verify realistic performance criteria and objective standards to ensure the effectiveness of the mitigation measure of the significant effect are allowed, e.g., compliance with BMPs or a hazardous waste management plan presented as part of the proposed project and during environmental review and required to ensure compliance with quantified mitigation measures.

No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. CEQA is very specific as to what constitutes possible findings and substantial evidence in the record (*CEQA Guidelines Sections 15091, 15092, and 15093*).

As discussed below, additional studies and plans are needed. Information contained in these studies and plans that are not included in the current DEIR is new information. Once these additional studies and plans are submitted and made available for public review and comment, CEQA requires public recirculation of the DEIR with public noticing in the same manner and with the same timelines as the original circulation before certification of the DEIR can occur (*CEQA Guidelines Section 15088.5*).

Funding and Cost Analysis

The County must provide the public (as requested by the Landmarks Commission) a detailed discussion of availability of federal funds under the Federal Highway Bridge Program and the new federal "Moving Ahead for Progress in the 21st Century Act" (MAP-2) (*refer to Attachment 1*) for seismic retrofit and rehab of the Watmaugh Road Bridge with a detailed cost analysis for cost effectiveness comparison between the replacement bridge project and the seismic retrofit/rehabilitation of the historic bridge alternative project. Levi Gurule, Senior Engineer, Sonoma County Department of Transportation and Public Works (DTPW), in memo dated April 23, 2012, states that funding sources would include funding for design and construction as approved by Caltrans, would consist of 80% federal funding reimbursement on design engineering and 88.53% federal funding for right of way and construction, eligibility for Proposition 1B Seismic Funds to pay the local matching funds for the rights of way and

construction phases of the project, and federal Toll Credit Funding to pay the County's required local matching funds (refer to Attachment 2). DTPW staff did not respond to a request to present the dollar amount of federal funds that have been used to start the design process now in progress that the County may be required to pay back (refer to Attachment 2).

DEIR DEFICIENCIES

To adequately enable the County decision makers to consider the environmental consequences of the proposed project, and to adequately inform the public and responsible agencies of the proposed project and its potentially significant environmental effects and its reasonable and feasible alternatives, the following is a listing and discussion as to the deficiencies and inadequacies of the DEIR for the Watmaugh Road Bridge (Bridge No. 20C-0017) Over Sonoma Creek Replacement Project (PCAS #4126) and the seismic retrofit/rehabilitation of the historic bridge alternative project.

AESTHETICS

J - 1	1. <i>The DEIR is deficient in its aesthetic analysis and conclusions as to the potentially significant visual impacts of the proposed project due to its vague project description and lack of plans including, but not necessarily limited to: (a) the project description refers to a concrete box girder or a concrete slab bridge; (b) the DEIR states that only minor amounts</i>
J - 2	<i>of additional rights-of-way would be required and temporary construction easements may be</i>
J - 3	<i>necessary; (c) the DEIR lacks design plans for the new bridge to be reviewed and analyzed, including the proposed design and attachment of old steel tresses to a new concrete bridge</i>
J - 4	<i>and design of the understructure; (d) the DEIR lacks plans, specifications, and disposal means and sites for the demolition of the historic bridge; (e) the DEIR lacks a tree removal</i>
J - 5	<i>plan identifying and quantifying the number of trees to be removed; and (f) the DEIR lacks a tree replacement plan. The photosimulation is insufficient to reach a conclusion on the visual</i>
J - 6	<i>and aesthetic impacts of the proposed project (refer to Attachment 3). CEQA does not</i>
J - 7	<i>permit mitigation measures formulated based on future studies or studies after certification of the EIR or after project approval.</i>
J - 8	

Discussion

J - 9	The DEIR has determined that in accordance with the PRMD Visual Assessment (VA) Guidelines, the visual sensitivity of the proposed project is <i>high</i> . The DEIR further states that: the visual dominance of the proposed project is determined by comparing the contrast of certain element or characteristics of the proposed project - such as form, shape, geometry, complexity - with its surroundings. The Initial Study states the significance of the visual impact by comparing site sensitivity with visual dominance of the proposed project may be significant even after the incorporation of proposed mitigation measures. The Initial Study found there would be potentially significant impacts under Aesthetics (a) (have a substantial adverse effect on a scenic vista) even after the incorporation of proposed Aesthetics Mitigation Measures No. 1 and No. 2. However, proposed Aesthetics Mitigation Measures A-1 and A-2 in the DEIR are virtually the same as proposed Aesthetics Mitigation Measures No. 1 and No.2 in the Initial Study and do not provide adequate analysis or specifics to come to a different conclusion in the DEIR than what is concluded in the Initial Study. There is no way of analyzing or measuring that Implementation of Aesthetics Mitigation Measures A-1 and A-2 will reduce the visual impacts to aesthetics to less-than-significant . The project description is vague and refers to a concrete box girder or a concrete slab bridge; however, these two options constitute distinct
J - 10	

J - 11 bridge designs and are not analyzed adequately under the DEIR. There are no existing design plans on which to base analysis and judgment, either by the decision makers or the public.

J - 12 The DEIR states the proposed project would require the removal of existing mature trees that would leave open bare areas and impact existing views. The DEIR does not identify these trees including specific species, size, location and the number of trees. The mitigation measures are vague, are not quantified, and cannot be analyzed as to their adequacy. There is no tree removal plan and no tree replacement plan put forth in the DEIR.

J - 13 The DEIR contains no design plans for review and analysis of the proposed project and DTPW staff says that no plans will be available for 6 to 12 months. The mitigation measures proposed

J - 14 are vague, cannot be measured or verified, and cannot be analyzed for their integrity by the

J - 15 decision makers or the public. The public was told that 30% design plans were needed in which to provide sufficient project detail to prepare the EIR (refer to Attachment 4).

J - 16 The DEIR states that only minor amounts of additional rights-of-way would be required. What is "minor"? How much land will be required? Where are the locations and acquisitions of the additional required rights-of-way? The DEIR needs to identify the affected property owners. The site plan is vague. The Watmaugh Road rights-of-way need to be mapped to understand the scope of the project. Per CEQA requirements, precise locations and boundaries of the proposed project need to be provided within the DEIR. The DEIR needs to include a site plan identifying the additional required rights-of-way to determine potential impacts to the environment with appropriate and adequate mitigation measures.

J - 17 The DEIR states that temporary construction easements may be necessary. Where will these construction easements be sited? The DEIR needs to identify the locations of these easements, the affected property owners, and determine potential impacts to the environment as a result of temporary construction easements with appropriate mitigation measures.

BIOLOGICAL AND HYDROLOGY

J - 18 2. *The DEIR is deficient in its biological analysis and conclusions as to the potentially significant biological impacts of the proposed project including, but not necessarily limited to, the effects and potentially significant impacts on sensitive or special status species, their habitats, and removal of vegetation. CEQA does not permit mitigation measures formulated based on future studies or studies after certification of the EIR or after project approval.*

Discussion

J - 19 In its letter dated September 4, 2012 to Mr. Rich Stabler, in response to the County's Notice of Preparation, California Department of Fish and Game (DFG) states that a complete Biological Assessment is required (refer to Attachment 5). DFG staff has verified that the Biological Assessment needs to be prepared as part of the CEQA environmental review process and to date a Biological Assessment has not been submitted. This Biological Assessment should be prepared by a qualified biologist. Type, quantity, and location of the species and habitats need to be addressed in accordance with CEQA and DFG protocol. In addition, DFG staff has stated that a Hydraulic Analysis of bridge abutment and pier locations is required. A Hydraulic Analysis will provide information as to the feasible location of bridge abutment and piers to avoid low velocity pools and run habitats occupied by the California Freshwater Shrimp, a federal and state listed endangered species known to occur in the project area. The conclusion in the

required Hydraulic Analysis would have a bearing on the location and design of the new bridge. The required Hydraulic Analysis would determine design elements that would minimize scour and may negatively affect existing freshwater shrimp habitat.

J - 19

Without the Biological Assessment required by DFG, the significance of the environmental impacts cannot be known and, therefore, specific mitigation measures cannot be put forth. In addition, without the Hydraulic Analysis, the design and location of the bridge cannot be determined and, therefore, specific locations and/or mitigation measures cannot be put forth.

J - 20

The Hydraulic Analysis should be of adequate detail to verify the 50-year and 100-year flood flows.

CULTURAL/HISTORICAL RESOURCES

J - 21

3. *The DEIR is deficient in its analysis and conclusions of the proposed project regarding how the proposed replacement project would be consistent with the established historic and rural character of the surrounding environment and Watmaugh Road as a rural, two-lane connector. The DEIR lacks design plans to reach a conclusion or set forth appropriate mitigation measures. Alternatively, the DEIR must address how the retrofit/rehab of the historic bridge alternative project, based on sufficient design plans, would have no adverse environmental effect, but would retain the established historic, rural and scenic character of the surrounding rural, agricultural, and historic environment.*

Discussion

J - 22

The project site is designated as a Scenic Landscape Unit in the Sonoma County 2020 General Plan Open Space and Resource Conservation Element. The DEIR must address and analyze the effects of the proposed bridge replacement project versus the retrofit/rehab of the historic bridge project to the existing natural and rural environment and the scenic, visual and historic vistas at the project site and along Watmaugh Road. The DEIR must address the unique site sensitivity, the historic and engineering design authenticity, and the aesthetics of the proposed bridge replacement project versus the retrofit/rehab of the historic bridge project.

J - 23

The DEIR must analyze the proposed replacement bridge project and the retrofit/rehab of the historic bridge project for impacts on the Historic District (HD) zoning and the Sonoma County Historic Bridges Thematic District.

The Watmaugh Road Bridge is a significant local historic landmark, designated as Sonoma County Historic Landmark #103. The County found the historic bridge to be eligible for the California Register. The Citizens for the Preservation of Sonoma Historic Bridges in discussions with the State Office of Historic Preservation believe that the historic bridge is eligible for the National Register of Historic Places and has been inadequately reviewed as such by County staff.

J - 24

As discussed in the Aesthetics Section above, the DEIR contains no design plans for review and analysis of the proposed project and County DTPW staff says that no plans will be available for 6 to 12 months. The mitigation measures proposed are vague, cannot be measured or verified, and cannot be analyzed for their integrity by the decision makers or the public. The public was told that 30% design plans were needed in which to provide sufficient project detail to prepare the EIR.

TRANSPORTATION/TRAFFIC

- J - 25 4. *The DEIR is deficient in its transportation/traffic analysis and conclusions as to the potentially significant impacts of the proposed project including, but not necessarily limited to, the effects and potentially significant impacts the proposed project, with increased load limits and speed, would have the rural two-lane Watmaugh Road, the intersections of Watmaugh Road and Arnold Drive and Watmaugh Road and State Highway 12. The DEIR lacks a Traffic Impact Study. CEQA does not permit mitigation measures formulated based on future studies or studies after certification of the EIR or after project approval.*

Discussion

- J - 26 In its letter dated August 21, 2012 to Mr. Rich Stabler, in response to the County's Notice of Preparation, California Department of Transportation (Caltrans) states that a Traffic Impact Study (TIS) needs to be prepared as part of the CEQA environmental review process and to date a TIS has not been submitted (*refer to Attachment 6*). The TIS should be prepared by an independent Traffic Consultant. The TIS, including current and future average daily traffic (ADT) and AM and PM peak hours for both automobile and truck traffic due to increased truck traffic loads and increased speed, should address the increase in traffic on Watmaugh Road as a result of the proposed project, including traffic at the intersections of Watmaugh Road and Arnold Drive and Watmaugh Road and State Highway 12 as well as other relevant road segments and intersections.

The TIS must address the issue that if Watmaugh Road is designated as a Rural Minor Collector, why would it need to accommodate regional transportation needs. The *DEIR* must address whether a retrofitted/rehabbed historic bridge project, together with the existing road conditions, can sufficiently meet the local public transportation needs and will not conflict with, or impact, the level of service standards and travel demands of Watmaugh Road as a rural minor collector.

- J - 27 The TIS must include a discussion of alternative routes used for regional traffic, including, but not necessarily limited to, vehicular traffic capacity, speed, and load limits, such as Leveroni Road and Petaluma Avenue, Riverside Drive and State Highway 12. The TIS must address the width of the existing historic bridge to accommodate two 11-foot travel lanes and the use of Watmaugh Road and the retrofitted/rehabbed historic bridge as a safe alternative route for local traffic. The TIS must address for safety purposes the reduction of the posted speed limit to further advance the safety of retrofitting/rehabbing the historic bridge with a posted speed limit of 15 mph across the bridge.

The TIS must provide a discussion and analysis that Watmaugh Road is not designated as a bike path in the County's 2020 General Plan, and Watmaugh Road lacks adequate shoulders or bike lanes to accommodate bicyclists or pedestrians. The TIS should address as an option to a replacement bridge project, the design and construction of a pedestrian-/bike-way to augment the retrofitted/rehabbed historic bridge to accommodate bicyclists and pedestrians now, or in the future.

MANDATORY FINDINGS OF SIGNIFICANCE

- J - 28 5. The DEIR must adequately address Mandatory Findings of Significance including whether the project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife species to drop below self-

- J - 28 sustaining levels, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history; and whether the project will have cumulative impacts.

SEISMIC RETROFIT/REHABILITATION OF THE HISTORIC BRIDGE ALTERNATIVE PROJECT

- J - 29 6. *The DEIR fails to provide clear objectives that will direct the lead agency to obtain adequate plans and thorough analysis of the seismic retrofit/rehabilitation of the historic bridge alternative project (CEQA Guidelines Section 15124) including detailed cost analysis. A primary objective of the EIR must be the preservation of the historic Watmaugh Road Bridge (Sonoma County Landmark #103) based on engineering plans, technical data, Caltrans exceptions (refer to Attachment 7, City of Healdsburg Resolution No. 25-2011) as needed, and detailed cost analysis.*

Discussion

- J - 30 As part of the environmental review process under CEQA, within the context of preparation of the *DEIR*, a reasonable range of alternatives, including retrofitting and rehabbing the existing historic bridge, must be included in the environmental evaluation. In order to sufficiently analyze the seismic retrofit/rehab of the historic bridge alternative project, the *DEIR* must include 30% preliminary design plans – including the approaches on both ends - engineering analysis, field investigation and data gathering, and cost analysis. Design plans and engineering analysis for the retrofit/rehab of the existing historic bridge alternative project must be in sufficient detail to be peer reviewed. As discussed in the Aesthetic Section above, no design plans, either for the proposed project or the seismic retrofit/rehab of the historic bridge alternative project been prepared or reviewed as part of the *DEIR* in order provide sufficient information to the decision makers or the public.

- J - 31 The *DEIR* must provide cost analyzes of the proposed replacement project and the alternative seismic retrofit/rehab of the historic bridge alternative project including a break-down of costs sufficient to be peer reviewed, including, but not necessarily limited to, structural and seismic work, decking, approach spans, truss work, floor beams and abutments, procurement of road rights-of-way, pier and foundation work, roadway improvements, utility relocations, and demolition.

- J - 32 In his memo to the Sonoma County Landmarks Commission, dated February 2011, Thomas F. O'Kane, Deputy Director Department of Transportation & Public Works, states that "the initial estimate for replacing a structure was estimated to be in the range of \$5 million." The cost of a new bridge according to the "Final Retrofit Strategy Report" prepared by Imbren and Associates, dated May 7, 1997, (retained by Cal Trans) states on page 42, that the cost of a replacement bridge would be approximately seven (7) times greater than a retrofitted bridge.

CONCLUSION

The Watmaugh Road Bridge, constructed in 1929 across Sonoma Creek is an excellent example of a steel Warren pony truss bridge design that was patented by James Warren and Willoughby Theobald Monzani of Great Britain in 1848. In continuous use since its construction, it is one of two steel Warren truss bridges remaining in Sonoma County. The Watmaugh Road Bridge is unique and historic because of its engineering technology of the early 1920's and its contribution to the County's first transportation plan. In 1981, the Sonoma County Board of

Supervisors designated the Watmaugh Road Bridge as Sonoma County Landmarks #103. This unaltered, 1929 steel Warren pony truss bridge retains a high degree of integrity. When the County's historic landmarks, which are treasured by all of Sonoma Valley residents and visitors alike, are lost and/or not maintained, the valley loses its charm and authenticity. In addition, the National Trust for Historic Preservation recently selected the Town of Sonoma as one of its 2011 Dozen Distinctive Destinations. (<http://www.preservationnation.org/about-us/press-center/press-releases/2011/new-bedrod.html>) There are obvious linkages amongst historic treasures within Sonoma Valley, such as the Watmaugh Road Bridge, a desirable place to live, attraction to tourism, a healthy economy, and national recognition of historic places as granted to the Town of Sonoma by the National Government.

The Citizens for the Preservation of Sonoma Historic Bridges (CPSHB) value safety, bicycle facilities, and judicious use of public funds. We urge the Board and County staff to uphold the County's own commitment to: "Protect structures and sites that provide significant examples of architectural styles of the past, or which are unique and irreplaceable assets to the County and its communities" (Sonoma County Landmarks Commission By-laws).

J - 33

The CPSHB applauds the Sonoma County Board of Supervisors and the Sonoma County Department of Transportation and Public Works staff for restoring and preserving the O'Donnell Lane Bridge in Glen Ellen with the use of federal funds through Caltrans. The CPSHB notes that this historic bridge retains a load limited, as does the historic Watmaugh Road Bridge.

J - 34

There are many case studies across the country of examples of the preservation of metal truss bridges (*refer to Attachment 8*) The Napa County citizens and governmental agencies and staff have worked together and have gone to considerable efforts to preserve their County's historic bridges. The citizens of Sonoma Valley and the City of Sonoma are likewise proud of their efforts to preserve their historic structures and heritage. The County of Sonoma has been destroying the Watmaugh Road Bridge over-time through neglect and poor planning. It is now time to retrofit and rehabilitate the bridge, which is a feasible alternative to the proposed project.

J - 35

The CPSHB requests that Sonoma County staff and the Sonoma County Board of Supervisors pursue the seismic retrofit and rehabilitation of the historic Watmaugh Road Bridge for continued use as a vehicular bridge and take whatever action is necessary to seriously review this matter independently and diligently as it affects all of us. Demolition of the historic Watmaugh Road Bridge by the wrecking ball or neglect is irreversible and is a significant impact under CEQA.

Respectfully submitted,

Joanna N. Patsis, D.C.P.
Dee
Larry A. Wedekind
Ken Miller
Steve Barber
Jul Jansen
Patricia Bess Daffern
Representing Citizens for the Preservation of Sonoma Historic Bridges
Jim Budesheim

ATTACHMENTS

1. Letter, California Department of Transportation, dated August 20, 2012
2. Memo, Levi Gurule, Senior Engineer, Sonoma County Department of Transportation and Public Works, dated April 23, 2012
3. Photosimulation of proposed project
4. Project and CEQA process presented by County staff Landmarks Commission Meeting, July 24, 2012
5. Letter, California Department of Fish and Game, dated September 4, 2012
6. Letter, California Department of Transportation, dated August 21, 2012
7. City of Healdsburg Resolution No. 25-2011
8. Case Studies

cc.

U.S. Fish and Wildlife Service (USFWS),
National Marine Fisheries Service (NMFS)
National Trust for Historic Preservation, Western Office, attn Anthony Veerkamp
National Trust for Historic Preservation, Washington D C Office, attn. Elizabeth Merritt
California Department of Transportation, Division of Local Assistance, attn. Kevin Pokrajac,
Chief
California Department of Transportation, attn. Erik Alm, AICP District Branch Chief
California Department of Transportation, attn. Denix D. Anbiah
California Department of Fish and Game, Bay Delta Region, attn. Scott Wilson, Acting Regional
Manager
California Department of Fish and Game, Bay Delta Region, attn. Adam McKannay,
Environmental Scientist
California State Office of Historic Preservation, attn Jay Correia
Sonoma County Department of Transportation and Public Works
Sonoma County Permit and Resource Management Department
Sonoma County Counsel
Sonoma Valley Citizens Advisory Commission
Sonoma County Ad Hoc Roads Committee
Sonoma City Council
Sonoma County Landmarks Commission
Sonoma League for Historic Preservation
Sonoma County Bicycle Coalition
Sonoma Valley Historical Society
Glen Ellen Historical Society
Trout Unlimited
Save Our Sonoma Road
Friends of Healdsburg Memorial Bridge
Rose Zoia Attorney

Watmaugh Bridge DEIR Response November 7_2012

Signatures continued

Representing Citizens for the Preservation of Sonoma Historic Bridges

Yvonne C. Louwers

Ann Vint A.I.A.

Mary Martin

Andrea H. Patri

Patricia Cullinan

M. M. M. M.

Pete Locher

Bonnie Brown

Candi Smith

Johanna M. Patri

Uecker H. Pulos

Nancy Simpson

Joan E. Edgley

Robert L. Edgley

Beverly Cunningham

Judy Dollosso

Maria Lambert

Stephani Steele

Enrica Poore

Elise Alexander Stone

Jim Whitwell

Rita M. Bertoni

Suzanne French

Barbara Allen

J. de Bish

Kathy J. Brundage

Dary Kozel / pc

DEPARTMENT OF TRANSPORTATION

DIVISION OF LOCAL ASSISTANCE

P.O. BOX 942873, MS-1

SACRAMENTO, CA 94273-0001

PHONE (916) 653-1776

FAX (916) 654-2409

TTY 711

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August 20, 2012

To All Cities and Counties in California

Dear Directors:

Under the new federal "Moving Ahead for Progress in the 21st Century Act" (MAP-21), federal funds are available to rehabilitate or replace deficient bridges in California. The purpose of this letter is to request that your agency review your inventory of public highway bridges that potentially need replacement, rehabilitation, or preventive maintenance. Your agency should take action to address any public safety issues and to extend the life of your agency's bridge inventory.

Caltrans has posted on its Structures Maintenance and Investigations (SM&I) web site the inventory of all local public highway bridges. Bridges eligible for major reconstruction or replacement have a Sufficiency Rating (SR) less than or equal to 80 and are flagged Structurally Deficient (SD) or Functionally Obsolete (FO) by federal inspection coding standards. These bridges have deficiencies that should be addressed by each bridge owner. The bridge list may be found on this link:

<http://www.dot.ca.gov/hq/structur/strmaint/localbrlist.pdf>

Please review Chapter 6 of the Local Assistance Program Guidelines, for application forms and requirements. Bridges that are off the federal aid system are eligible for 100% federal reimbursement.

Applications for federal funds should be submitted to your District Local Assistance Engineer (DLAE), no later than September 30th, and January 31st of each year to ensure timely inclusion into the Local Assistance Bridge Program and the Federal Transportation Improvement Program (FTIP). See Office Bulletin 10-01 for the Bridge Program-FTIP procedures.

Caltrans also requests your agency to develop a bridge preventive maintenance program to keep bridges that are in good condition from becoming deficient. Guidelines/requirements for requesting federal funds to develop local agency bridge preventive maintenance programs are in the Local Assistance HBP web site:

<http://www.dot.ca.gov/hq/LocalPrograms/hbrr99hbrr99a.htm>

"Caltrans improves mobility across California"

All Cities and Counties in California
August 20, 2012
Page 2

If you have any questions, please contact your District Local Assistance Engineer.

Sincerely,

A handwritten signature in black ink, appearing to read 'Denix D. Anbiah', with a long, sweeping horizontal stroke extending to the right.

DENIX D. ANBIAH
Chief
Division of Local Assistance

COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
2300 COUNTY CENTER DRIVE, SUITE B 100
SANTA ROSA, CALIFORNIA 95403

Phillip M. Demery, Director



AREA CODE (707)
ROADS 565-2231
TRANSIT 585-7516
REFUSE 565-7940
AIRPORT 565-7243
AIR POLLUTION 433-5911
FAX 565-2620
www.sonoma-county.org/tpw

April 23, 2012

Sonoma County Permits and Resources Department
Attention: Lisa Posternak

Subject: Watmaugh Road Bridge Replacement
Technical Memorandum – Funding Sources

Dear Lisa,

Below is the technical information on fund sources for the three alternative projects for Watmaugh Road Bridge Replacement Project.

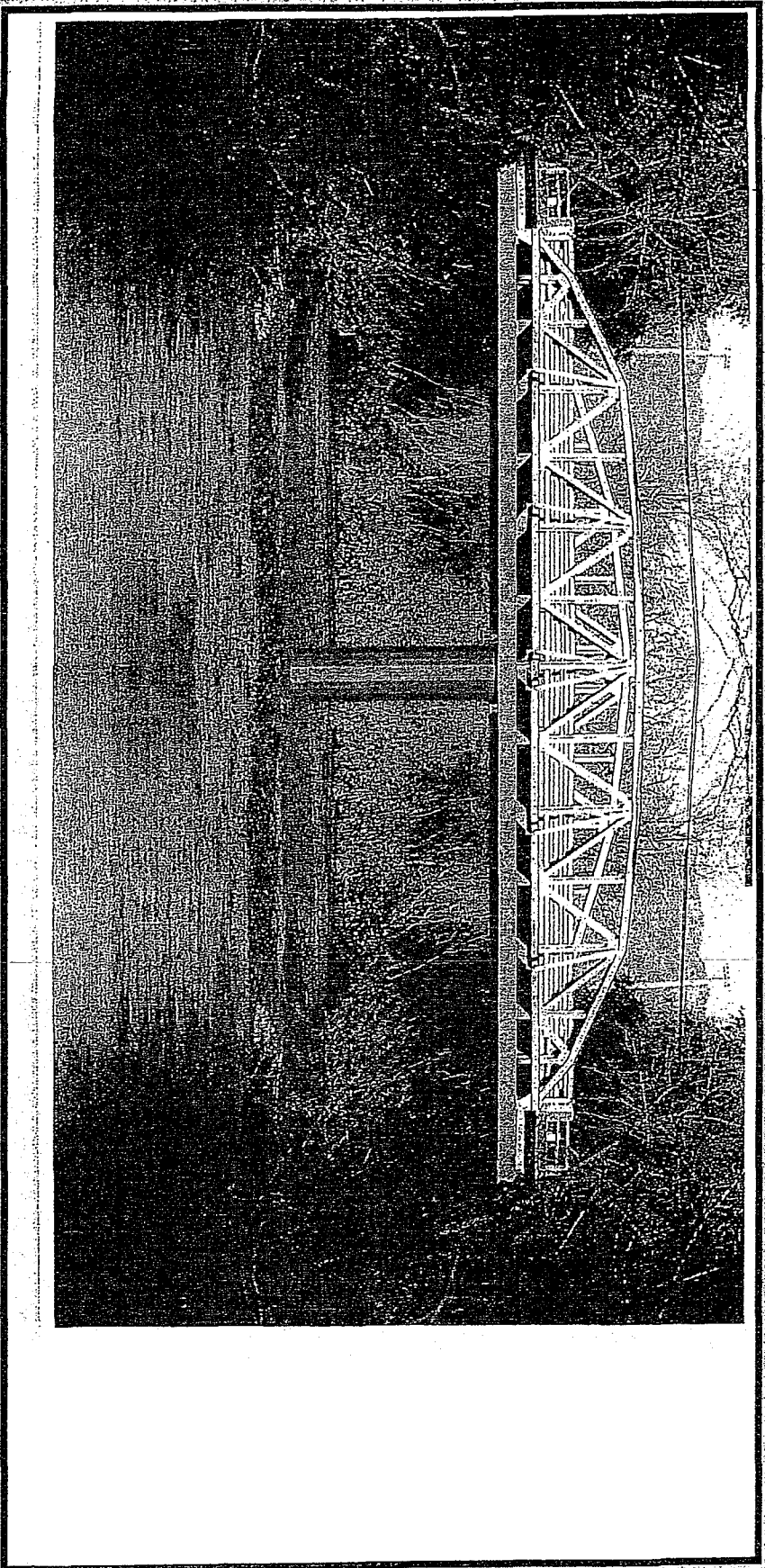
Replace Bridge in Existing Location

Replacing the existing bridge with a new bridge at the same location as the existing bridge requires the removal of the existing bridge. The Sonoma County Transportation and Public Works Department proposes to preserve the trusses from the existing bridge and attach them to the new two span concrete box girder bridge. Funding for design and construction of the two span concrete box girder bridge has been approved by Caltrans. Funding consist of 80% federal funds reimbursement on design engineering and 88.53% federal funding for right of way and construction. Currently this project is eligible for Proposition 1B Seismic Funds to pay the local matching funds for the right of way and construction phases of the project. Another source of federal funds called Toll Credit Funding may also be available to pay the County's required local matching funds at the time the right of way phase and construction phase of the project starts. The County's local matching funds share of the project will be 20% of the design cost plus any ineligible cost to preserve the trusses and install them on the new bridge.

Replace Bridge in Alternate Location Downstream (and Leave Existing Bridge)

Replacing the existing bridge with a new bridge at a downstream location will allow the existing bridge to remain in place and have minor repairs. The Sonoma County Transportation and Public Works Department proposes to convert the existing bridge into pedestrian-bicycle bridge. Federal funding to make repairs to the existing bridge may be applied for up to the cost of demolition of the bridge. Funding for design and construction of the two span concrete box girder bridge has been approved by Caltrans. Funding consist of 80% federal funds reimbursement on design engineering and 88.53% federal funding for right of way and construction. Currently this project is eligible for Proposition 1B Seismic Funds to pay the local matching funds for the right of way and construction phases of the project. Another source of federal funds called Toll Credit Funding may also be available to pay the County's required local matching funds at the time the right of way phase and construction phase of the project starts. The County's local matching funds share of the project will be 20% of the design cost plus any

Photosimulation - Proposed Project



PROJECT & CEQA PROCESS

- ❖ PRMD Staff publishes Notice of Preparation of EIR to obtain input on EIR Scope.
- ❖ Bridge design reaches 30%, which provides sufficient project detail to prepare EIR.
- ❖ PRMD Staff prepares Administrative Draft & Draft EIRs.
- ❖ PRMD Staff publishes Draft EIR with a 45-day public comment period.
- ❖ PC Public Hearing on Draft EIR - after minimum of 30 days into public comment period.
- ❖ PRMD Staff prepares Final EIR.



State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.dfg.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



September 4, 2012

Mr. Rich Stabler
Sonoma County Permit and
Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Mr. Stabler:

Subject: Watmaugh Road Bridge Replacement Project, Notice of Preparation,
SCH #2012082037, Sonoma County

The Department of Fish and Game (DFG) has reviewed the Notice of Preparation (NOP) for the Watmaugh Road Bridge Replacement (Project). The NOP was received in our office on August 13, 2012.

DFG is identified as a Trustee Agency pursuant to the California Environmental Quality Act (CEQA) Section 15386 and is responsible for the conservation, protection, and management of the State's biological resources. DFG is submitting comments on the NOP as a means to inform the Lead Agency of our concerns regarding sensitive resources which could potentially be affected by the Project.

The Project proposes to replace the existing bridge where Watmaugh Road crosses Sonoma Creek with a new bridge consisting of a two span pre-stressed concrete box girder that would be approximately 185 feet long and 32 feet wide. To construct the new bridge, Cast-In-Drilled-Hole (CIDH) concrete piers would be drilled into the banks of the creek at the locations of the abutments and at the center pier, with the number and size of the CIDH piers to be determined prior to construction, based upon the results of a geotechnical report. Additional rock slope protection (RSP) may be included with the proposed bridge replacement. Prior to removal of the existing bridge, a debris catching platform would be constructed under the bridge. The platform would be supported by the existing structure over the water and would function to prevent concrete debris from falling into the creek during removal of the existing bridge deck. Vegetation removal will be kept to the minimum necessary to complete the Project and will occur during the fall and winter to avoid the migratory bird nesting season.

California Freshwater Shrimp

The NOP indicates that California freshwater shrimp (*Syncaris pacifica*) have been observed within the Project site. California freshwater shrimp are federally and state listed as endangered, occurring only in a limited number of lowland streams in Marin, Sonoma and Napa counties. Freshwater shrimp habitat requirements include undercut banks,

Western Pond Turtle

Western pond turtles are known to occur within Sonoma Creek, basking on the banks and fallen logs, and nesting in the upper riparian area. A pre-construction survey for western pond turtles should be conducted prior to beginning work by a DFG-approved qualified biologist. This survey should include a focused survey for adult turtles and nest sites. Any adults found within the work area should be relocated to suitable off-site habitat by a qualified biologist. Nest sites discovered during the pre-construction survey or anytime during construction shall be avoided until vacated, as determined by a qualified biologist. On-going monitoring during construction should occur to ensure turtles have not moved back into the area and that they are not being impacted by Project activities.

Nesting Birds

If any nesting birds are documented within or adjacent to the Project area, DFG recommends that prior to any Project activities, protective buffers be established surrounding the nest to avoid "take." Project-related activities requiring buffers to avoid disturbance include, but are not limited to, equipment staging, ground-disturbing and construction activities, coffer dam installation, and tree pruning and removal. At minimum, buffers of 50 feet for small songbirds and 500 feet for larger species (e.g. threatened and endangered species, and all raptors, including both diurnal and nocturnal species) designated by the biologist shall be avoided until the nests have been vacated.

California Endangered Species Act

Please be advised that a California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit.

Lake and Streambed Alteration Agreement

Each of the three Alternatives for the Project proposes a change to the bed, channel, or bank (which may include associated riparian resources) of Santa Rosa Creek and will require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of an LSAA is subject to CEQA. DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the LSAA notification process, please access our website at <http://www.dfg.ca.gov/habcon/1600/> or to request a notification package, contact the Lake and Streambed Alteration Program at (707) 944-5520.

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-6053
FAX (510) 286-5559
TTY 711

AUG 22 2012

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA



*Flex your power!
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August 21, 2012

SON012592

SON-12-39.4

Mr. Rich Stabler
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Dear Mr. Stabler:

Watmaugh Road Bridge Replacement Project – Notice of Preparation

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Watmaugh Road Bridge Replacement project. The following comments are based on the Notice of Preparation (NOP). As the lead agency, the County of Sonoma (County) is responsible for all project mitigation, including any needed improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. This information should also be presented in the Mitigation Monitoring and Reporting Plan of the environmental document. Since an encroachment permit is required for work in the state right of way (ROW), and Caltrans will not issue a permit until our concerns are adequately addressed, we strongly recommend that the County work with both the applicant and Caltrans to ensure that our concerns are resolved during the California Environmental Quality Act (CEQA) process, and in any case prior to submittal of a permit application. Further comments will be provided during the encroachment permit process; see the end of this letter for more information regarding encroachment permits.

Traffic Impact Study

We encourage the County to coordinate preparation of the Traffic Impact Study (TIS) with our office, and we would appreciate the opportunity to review the scope of work. Please include the information detailed below in the TIS to ensure that project-related impacts to state roadway facilities are thoroughly assessed. The Caltrans "Guide for the Preparation of Traffic Impact Studies" should be reviewed prior to initiating any traffic analysis for the project; it is available at the following website: http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

The TIS should include:

1. Vicinity map, regional location map, and a site plan clearly showing project access in relation to nearby state roadways. Ingress and egress for all project components should be clearly identified. The state ROW should be clearly identified.
2. The maps should also include local roads and intersections, parking, and transit facilities.
3. Project-related trip generation, distribution, and assignment. The assumptions and methodologies used to develop this information should be detailed in the study, and should be supported with appropriate documentation.
4. Average Daily Traffic, AM and PM peak hour volumes and levels of service (LOS) on all significantly affected roadways, including crossroads and controlled intersections for existing, existing plus project, cumulative and cumulative plus project scenarios. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect study area roadways and intersections. The analysis should clearly identify the project's contribution to area traffic and degradation to existing and cumulative LOS. Lastly, the Caltrans LOS threshold, which is the transition between LOS C and D, and is explained in detail in the "*Guide for the Preparation of Traffic Impact Studies*", should be applied to all state facilities. Please note, Caltrans considers LOS by itself as an inadequate measure of effectiveness (MOE) for describing traffic operational conditions since it may actually mask a deficient condition on one or more approaches. As for intersection analysis the accepted MOEs used by Caltrans include flow (output), average control delay, queue (length or number of vehicles), and Volume/Capacity (V/C) ratio. For freeway and ramp operations, flow (output), speed, and travel time/delay are the accepted MOEs in addition to LOS.
5. Schematic illustration of traffic conditions including the project site and study area roadways, trip distribution percentages and volumes as well as intersection geometrics, i.e., lane configurations, for the scenarios described above.
6. Please provide a copy of the Traffic Management Control Plan.

Cultural Resources

The project environmental document must include documentation of a current archaeological record search from the Northwest Information Center of the California Historical Resources Information System if construction activities are proposed within state ROW. Current record searches must be no more than five years old. Caltrans requires the records search, and if warranted, a cultural resource study by a qualified, professional archaeologist, to ensure compliance with CEQA, Section 5024.5 of the California Public Resources Code and Volume 2 of the Caltrans Standard Environmental Reference (<http://ser.dot.ca.gov>). These requirements, including applicable mitigation, must be fulfilled before an encroachment permit can be issued for project-related work in state ROW; these requirements also apply to National Environmental Policy Act documents when there is a federal action on a project. Work subject to these requirements includes, but is not limited to: lane widening, channelization, auxiliary lanes, and/or modification of existing features such as slopes, drainage features, curbs, sidewalks and driveways within or adjacent to state ROW.

CITY OF HEALDSBURG

RESOLUTION NO. 25-2011

A RESOLUTION OF THE CITY COUNCIL OF THE CITY
OF HEALDSBURG AUTHORIZING THE SUBMITTAL OF
A DESIGN EXCEPTION FACT SHEET FOR
REHABILITATION OF THE HEALDSBURG AVENUE
BRIDGE

WHEREAS, on September 7, 2010 the City Council of the City of Healdsburg conducted a public hearing to receive comments on fifteen different concepts for the Healdsburg Avenue Bridge developed through a series of three open houses and three public meetings; and

WHEREAS, on September 7, 2010 the City Council of the City of Healdsburg identified rehabilitation of the Healdsburg Avenue Bridge as the locally preferred concept for the purposes of conducting technical and environmental studies required by the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) and directed staff to prepare the necessary reports and technical studies; and

WHEREAS, the City Council of the City of Healdsburg received a status report on the Healdsburg Avenue Bridge Project from the Public Works Director and the City's consultants Omni-Means on January 18, 2011 including a draft Design Exception Fact Sheet that identified several areas wherein a rehabilitated Healdsburg Avenue Bridge would not meet current standards established by the American Association of State Highway and Transportation Officials (AASHTO) including: design speed, lane width, shoulder width, horizontal alignment, vertical alignment, horizontal clearance, vertical clearance, stopping sight distance, bridge width; and

WHEREAS, Caltrans has indicated in order for them to consider funding rehabilitation of the Healdsburg Avenue Bridge, the City must prepare and submit a Design Exception Fact Sheet for their records identifying the areas for which design exceptions are being sought, and acknowledge the corresponding responsibilities associated with keeping the existing bridge in service.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Healdsburg acknowledges the design exceptions associated with rehabilitation of the Healdsburg Avenue Bridge, and the corresponding responsibilities.

BE IT FURTHER RESOLVED that the City Council of the City of Healdsburg authorizes the Public Works Director to submit the Design Exception Fact Sheet to Caltrans in its current form, subject to any non-substantive changes that may be made subject to the concurrence of the City Attorney.

PASSED, APPROVED, AND ADOPTED this 22nd day of February, 2011, by the following vote:

AYES: Councilmembers: (4) Babb, Jones, Plass, and Mayor Chambers

NOES: Councilmembers: (0) None

ABSENT: Councilmembers: (1) Wood

ABSTAINING: Councilmembers: (0) None

SO ORDERED:

ATTEST:

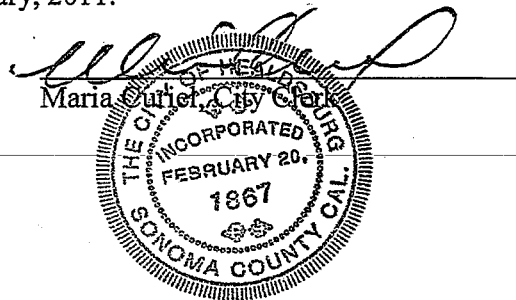
/S/ THOMAS L. CHAMBERS

Thomas L. Chambers, Mayor

/S/ MARIA CURIEL

Maria Curiel, City Clerk

I, MARIA CURIEL, City Clerk of the City of Healdsburg, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the City Council of the City of Healdsburg on the 22nd day of February, 2011.



METAL TRUSS BRIDGES

Tobias Bridge, Jefferson County, Indiana

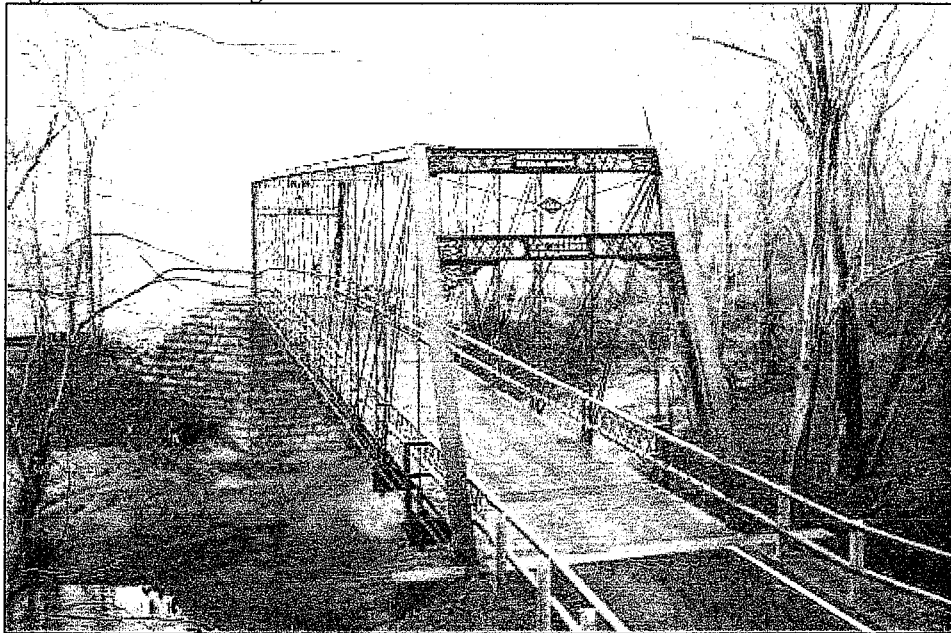
Location and Description of Setting:

The Tobias Bridge carries County Road 1350 West over Big Creek in Jefferson County, Indiana. The bridge is located on a one-lane, local road in a rural setting.

Description of Bridge:

The Tobias Bridge was fabricated in 1885 by the Indianapolis Bridge Company. It is a 154 foot-long, pin-connected wrought iron Whipple through truss bridge, and is the last metal truss bridge left in the county.

Figure 11. Tobias Bridge



Rehabilitation Project Information

Date/Cost for Rehabilitation:

The bridge was rehabilitated in 2004 for about \$900,000 by Jefferson County.

Project Designer:

J. A. Barker Engineering, Inc.

Bridge Owner/Client:

Jefferson County, Indiana

Source for Additional Information:

James Olson
Jefferson County Highway Engineer
300 East Main Street
Madison, Indiana 47250
jchd@siedata.com

Project Information

1. **Significant issues associated with project (e.g., bridge condition, reasoning behind decision to rehabilitate versus replacement, reasoning behind selected maintenance activity).**

The Tobias Bridge is the last remaining example of its type in the county. This prompted the county highway engineer and county commission to consider rehabilitation rather than replacement as a means to increase the bridge's load carrying capacity, from three tons to 14 tons (the post-rehabilitation capacity).

2. **Project description, including purpose and need.**

The bridge's low load carrying capacity was controlled by the light design of the verticals, composed of Z-shaped plate commonly used by the railroads. The challenge was to develop a way to increase their capacity and preserve their distinctive detail, as well as repair those that were bent or bowed. After considering several schemes, a decision was made to install additional plate to the outside of each vertical. The plates were connected using high strength button head bolts to keep the look of the original rivets, but at a lesser cost. Heat straightening was used to repair out-of-plane members. The historic look of the lattice railings inside the truss lines was preserved by welding them to modern tubular railings, providing an adequate safety feature that maintains a historic appearance. Cracked members in the ornamented portal braces were repaired, and the bridge was cleaned and painted.

3. **Lessons Learned.**

The county recognized the cultural value of the bridge and wanted it preserved and kept in service, and accepted that the end product would be a one-lane wide bridge with a 14-ton load carrying capacity. The county also retained a consulting engineer with a strong historic bridge rehabilitation record, and who had experience with developing practical ways to make truss bridges adequate while preserving historically significant details, like the Tobias Bridge's unusual verticals.

The project highlights several cost-effective rehabilitation techniques. Button head high-strength bolts were used instead of rivets as a more economical way to connect the new plates to the verticals. Heat straightening was used to bring members back into plane, demonstrating the cost effectiveness of this underused but cost-effect technique. Welding was used to repair cracks in the cast- and wrought-iron members in the portal braces, which, like the heat straightening, results in original fabric being conserved and preserved rather than replaced. The railings represent a practical solution by marrying old with new and providing a traffic railing that will also protect the truss lines.

Pine Creek Bridge, or Tiadaghton Bridge, Clinton and Lycoming Counties, Pennsylvania

Location and Description of Setting:

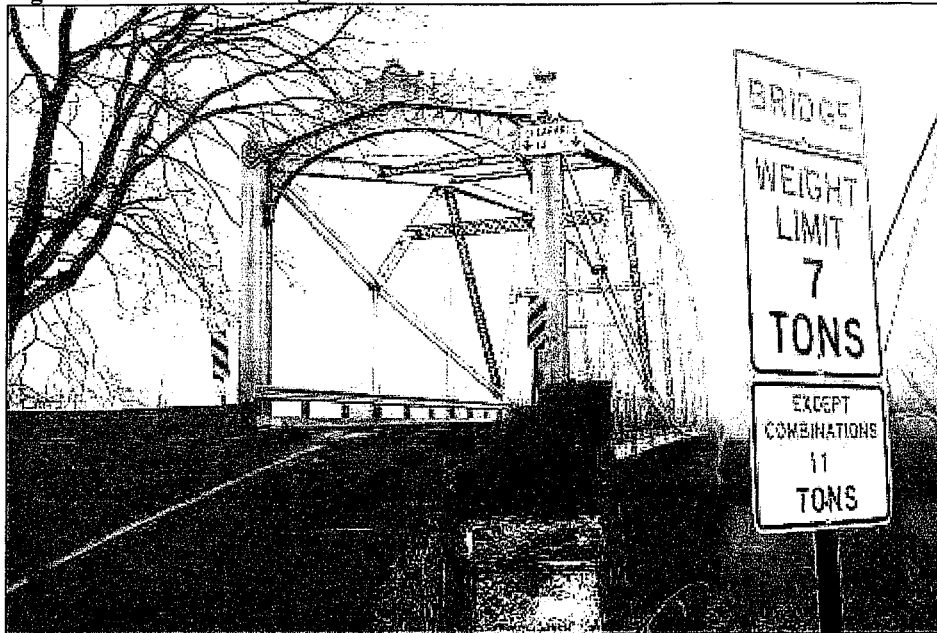
The Pine Creek Bridge, locally known as the Tiadaghton Bridge, carries River Road over Pine Creek, at the boundary between Clinton and Lycoming Counties, Pennsylvania. It is approximately 1.5 miles southwest of the Borough of Jersey Shore, Pennsylvania. Pine Creek drains into the Susquehanna River 4,500 feet to the southeast of the bridge. The area surrounding the bridge has a low population density and is predominately agricultural. The area on the west side of the bridge is the location of the Tiadaghton Elm, a local historic landmark.

Description of Bridge:

The Pine Creek Bridge was constructed by the Berlin Iron Bridge Company in 1889. It is a seven-panel through lenticular truss with the Warren pattern typical of such longer spans. On the top chord, the panels measure 41 feet between joints, while on the bottom chord between joints the panels measure 20 feet 6 inches. The bridge is made of wrought and cast iron with steel members and decking added in later renovations. The bridge spans 287 feet 8 inches between end posts, with 21-foot high endposts measured from their bases to their upper pin connections. The maximum distance between the upper and lower chords is 39 feet 8 inches near the center of the span. The endposts are roughly square in section and consist of three flat plates riveted to four angles. Their inner edges are open and secured by latticed straps. At the portals, the end posts are joined by a pair of riveted angles that are further strengthened by latticed arches joining the posts near the top.

The floor system consists of beams spaced at approximately 7 feet for the entire span length beneath stringers spaced at 3.5 feet, supporting a 5.25 inch open-grid steel deck. The top chords are built-up sections consisting of two web plates, a top plate, and lacing connected with angles. The lower chords are tension-resisting members made up of sets of eye-bars. The diagonals are built-up angle sections with lacing. The vertical hangers are two square rods. A mid-height rod spans the length of the structure.

Figure 16. Pine Creek Bridge



Rehabilitation Project Information

Date/Cost for Rehabilitation:

Rehabilitation is currently ongoing.

Project Designer:

McFarland Johnson

Mark A. Hugaboom, PE

<http://www.mjinc.com/bridgesProject2.html>

Bridge Owner/Client:

Pennsylvania Department of Transportation (PennDOT)

Source for Additional Information:

Virginia Feigles-Karr

Project Manager

Pennsylvania Department of Transportation

Project Information

1. **Significant issues associated with project (e.g., bridge condition, reasoning behind decision to rehabilitate versus replacement, reasoning behind selected maintenance activity).**

Rehabilitation was advanced as an alternative to replacement, in part, because of the high probability and cost of archaeology within the project area. A new bridge on a new alignment would have had significant impacts on the floodplain surrounding the existing truss, and would have impacted archaeological sites located within the floodplain.

2. Project description, including purpose and need.

The purpose of this project was to provide a crossing of Pine Creek that would satisfy the area's transportation needs for an extended period of time, while recognizing the historical significance of the bridge and the nearby Tiadaghton Elm. The bridge was classified as functionally obsolete due to its narrow width (16 feet 11 inches), which required the bridge to be single lane. Its primary structural members, the trusses, limited the bridge's width. The bridge also had an open steel deck which, especially in wet conditions, could result in vehicle tire slippage and loss of directional control. In addition, like all truss bridges, the Pine Creek Bridge features supported members adjacent to the roadway; if not adequately protected by a structural barrier, these could be damaged by a crash on the bridge. The non-redundant design of the truss could result in complete collapse of the span if a major support member were sufficiently damaged.

The vertical alignment approaching the bridge was also substandard, causing vehicles' undercarriages to frequently contact the pavement. The vertical alignment also resulted in inadequate sight distance for vehicles.

3. Traffic levels, loading needs, and other related issues.

River Road is classified as a rural collector, and traffic counts conducted on August 2, 2000 indicate an Annual Average Daily Traffic (ADT) of 892 vehicles. The results of an Origin and Destination Study revealed that the majority of travelers crossed the bridge more than once a day and their main travel purpose was either work (36 percent) or social (25 percent). No significant development in the project area was expected in the foreseeable future. As a result, the future (design year) traffic in the no-build condition was forecast to exhibit little if any increases over existing traffic volumes.

Farmer surveys indicated their concern with the weight restriction placed on the bridge. Because of this weight restriction, farmers could not cross the bridge with some types of equipment, such as heavy tractors, loaded wagons, combines, and tractor trailers. At the time of the survey it was determined that an acceptable limit would be a 25 ton combination limit.

4. Section 106 effects finding (no adverse, adverse). Major issues discussed with State Historic Preservation Officer, and how issues were resolved.

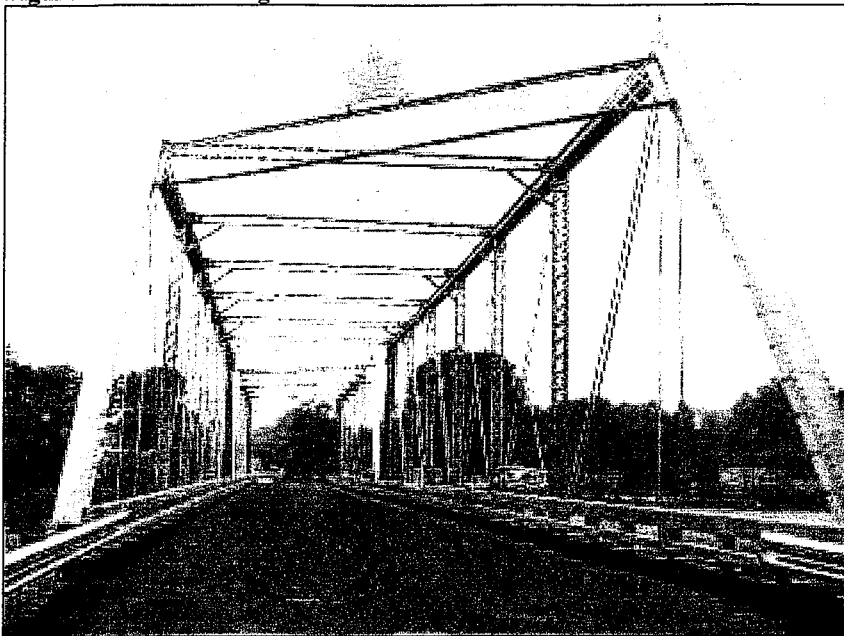
Based on a field view with personnel from the Pennsylvania SHPO, and subsequent coordination with the SHPO and FHWA, it was determined that the selective replacement and augmentation of truss components with high-strength steel would result in No Adverse Effect on the historic bridge.

After the bridge was dismantled, and further deterioration was discovered, the project contractor, PennDOT personnel, and FHWA maintained ongoing coordination with the SHPO to identify solutions consistent with the original project finding.

5. Lessons Learned.

Frequent field visits and communication between PennDOT, the project contractor, FHWA, and the SHPO was essential to addressing unanticipated issues such as the deterioration of truss components.

Figure 21. Goshen Bridge



Rehabilitation Project Information

Date/Cost for Rehabilitation:

Documentation of the history and structure of the bridge, and planning for a full rehabilitation of the structure took place over several years. Construction began in March 2001. The removal of the trusses began in June 2001 (the actual removal started with the erection of the false work beams, prior to June 2001). The last truss was removed in October 2001. Reassembly began in February 2002, and construction was completed in July 2002.

The contract was awarded to Allegheny Construction of Roanoke, Virginia, for \$2.1 million; the final cost was approximately \$2.2 million due to change orders for additional work replacing additional lower chord members.

Project Designer:

Virginia DOT Staunton District Structure & Bridge Office

Bridge Owner/Client:

Virginia Department of Transportation (VDOT)

Source for Additional Information:

Ann L. Miller
Senior Research Scientist / Historian
Virginia Center for Transportation Innovation & Research
530 Edgemont Road
Charlottesville, VA 22903
Ann.Miller@VDOT.Virginia.gov

Project Information

1. **Significant issues associated with project (e.g., bridge condition, reasoning behind decision to rehabilitate versus replacement, reasoning behind selected maintenance activity).**

The Goshen Bridge was in poor condition, with widespread corrosion and section loss in some of the structural members. Prior to 1948, its roadway had been reduced to a single lane, and posted for a load limit of six tons. Because of the load limit, the bridge was unable to accommodate various emergency and service vehicles to some homes in Goshen. Over the years, costly maintenance on the bridge had been deferred with the aim of eventually replacing the bridge with a modern structure. By the late twentieth century, inspection reports detailed the poor condition of the bridge. There were numerous areas of corrosion and section loss to steel members. The piers were missing mortar and substructure stones in various locations. The roller bearing devices were frozen, and some were displaced. In addition, debris was present on the bridge seats, on the connections, and between the stringers. Only one lane was open to vehicular traffic. The other lane, originally planned as a streetcar lane, had not had decking for at least 50 years, and there was attendant corrosion of the exposed members.

VDOT considered several alternatives for the management of the Goshen Bridge: leave the structure as-is, document and demolish the bridge; preserve or restore the bridge in place or at a more appropriate location, or rehabilitate the bridge to meet current system needs. Several factors resulted in VDOT's decision to rehabilitate the structure. The Goshen Bridge is listed in the Virginia Landmarks Register and the National Register, and VDOT had committed to preserving its historically-significant bridges whenever possible. There also was strong local pressure to preserve the bridge as an important landmark and to keep it in service. These factors contributed to the decision to rehabilitate the Goshen Bridge rather than replace it with a modern structure.

2. **Project description, including purpose and need.**

The VDOT Staunton District Structure & Bridge Office planned a full rehabilitation of the Goshen Bridge over several years, and in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (Weeks and Grimmer 1995). The plan was to repair and repaint the stone piers as needed, using compatible mortar. The truss was to be disassembled, and the members repaired as needed and galvanized. The truss was then to be reassembled and restored for two lanes of vehicular traffic.

The project involved disassembling, reassembling, and rehabilitating the structure not only to continue to serve vehicular traffic but also to handle increased loads. VDOT personnel measured and photographed the bridge prior to its disassembly. Because the original drawings for the bridge no longer existed, new blueprints were created.

Rehabilitation included the disassembly of the bridge, replacement of elements weakened by section loss or not fabricated to meet modern design specifications, galvanizing of the members to provide lasting protection, and reassembly of the restored substructure. Based on the findings of the field inspection, the design team determined that more than 100 structural components needed to be replaced. These components included all endposts, hip verticals, upper chord members, counters, and pins, as well as the floor beams, stringers, and deck. Radiographic and ultrasonic testing was conducted to ensure the suitability of all fracture-critical tension members designated for reuse in the reconstructed trusses. Tension control (round head) bolts, placed with the round head on the visible face of the structure, were to be used in the reconstruction of the structure. All of the structural steel,

including the bolts and bearings, was galvanized. Modern construction equipment allowed modification of the dismantling and erection processes at the bridge site, including the use of the internal falsework beam system rather than falsework bents at every panel point.

Preserving the historical integrity of the Goshen Bridge was an important consideration. Rehabilitating the bridge required substantial replacement of members, but the original configuration of the bridge was maintained. The rehabilitation was controversial in part because it was more expensive than replacing the bridge with a modern structure.

The technology and materials used to build truss bridges are no longer in use, however, and few people have practical experience building or repairing these bridges. Further, little information is readily available on safely and effectively identifying and performing necessary operations. To address this issue, VDOT's Knowledge Management Division and the Virginia Transportation Research Council (now the Virginia Center for Transportation Innovation & Research) interviewed active and retired engineers, consultants, field personnel, environmental specialists, and architectural historians, and collected best practices related to pin-connected and riveted truss bridges.

3. Traffic levels, loading needs, and other related issues.

The structure was completely rehabilitated with two lanes of vehicular traffic and designed for the AASHTO H20-44 standard truck loading.

4. Section 106 effects finding (no adverse, adverse). Major issues discussed with State Historic Preservation Officer, and how issues were resolved.

VDOT, in consultation with the Virginia SHPO, determined that the proposed rehabilitation would have No Adverse Effect on the historic bridge.

5. Lessons Learned.

The lessons learned from the Goshen Bridge project were:

- The disposition of a historic truss depends on its suitability for continued service in the transportation system, and its evaluation as a historic property. Local support is critical to the success of these projects.
- Successful restoration or rehabilitation of a historic truss is best accomplished through a partnership that includes historic resource personnel, bridge engineers, and the project contractor.
- Rehabilitation of the Goshen Bridge to carry modern loads cost much more than a conventional replacement structure, requiring funds beyond those available for normal maintenance replacement. Funding for a rehabilitation or restoration project must be in place to ensure its success.
- The first step in dismantling the Goshen Bridge was a detailed field inspection of the condition of the truss members, identifying the presence of lead paint, and measuring the general dimensions of the bridge and its site. Because the rehabilitation included the reassembly of the truss with the replacement of members, the inspection included detailed measurements of the dimensions of every member in the bridge. This level of documentation was essential in order to analyze the loads and determine stresses in the truss members.
- The detailed inspection and structural analysis of the bridge was critical. The project team also recognized that, to ensure worker safety, it needed to exercise sufficient care in properly supporting the truss.

- Project plans included those items needed to facilitate bidding and ensure proper completion of the project. It is also useful to include a suggested sequence of construction, details of the falsework system, any limitations on the size and weight of worker access systems, and any needed information on the layout of the existing bridge, in addition to details of the rehabilitated structure.
- The Goshen Bridge was constructed prior to the development of standard specifications for structural steel. For the rehabilitation project, samples from the truss members were tested to provide data on the strength and the weldability of the steel.
- The *Secretary of the Interior's Standards for Treatment of Historic Properties* (Weeks and Grimmer 1995) were used to guide the rehabilitation. Members in the rehabilitated bridge complied with AASHTO specifications applicable to their planned use. This included pedestrian loading for the bridge. In addition, the rehabilitation's field operations complied with environmental regulations of several local, state, and federal agencies.
- While the bridge trusses were dismantled, a falsework supported the structure. Generally, the falsework could be an internal beam system, a system of individual supports, or another approach suitable for the site. Each must be designed to carry safely the loads transferred from the trusses, and each must be in place to support the trusses completely prior to beginning dismantling operations.
- The location of members in the truss were marked in place before dismantling began. They were permanently die-marked prior to any treatment, including lead paint removal, after the truss was dismantled.
- Depending on the size of the structure and the extent of the movement required, modern construction equipment may allow for the removal and transport of a structure from its site with little or no dismantling.
- By applying the principles of preventive maintenance to bridges determined to be truly significant, their deterioration – and thus the costs of their restoration or rehabilitation – can be minimized, facilitating the preservation of important historic properties for future generations.

Hawthorne Street Bridge, Covington, Virginia

Location and Description of Setting:

The Hawthorne Street Bridge, in downtown Covington, Alleghany County, Virginia, crosses three C&O/CSX railroad lines. The bridge serves parts of downtown Covington north of the railroad. During periods of high water, it is the only lifeline into this part of the city and thus must support emergency vehicles.

Description of Bridge

The Hawthorne Street Bridge was constructed ca. 1885–1890. It is a 75-foot clear span historic Pratt through truss bridge with Phoenix columns. It has a roadway width of 22 feet, and the span length is 81.0 feet. The deck width is 22.0 feet, and the vertical clearance above the deck is 14.3 feet. Five 15-foot bays are transversely supported by 14 by 119 foot girders. The six inch thick reinforced concrete deck between the girders is supported by stringers on five foot centers. The bridge now rests on concrete abutments, indicating that the bridge was moved to its present location in the early twentieth century.

The Hawthorne Street Bridge is one of five truss bridges in Virginia that use the patented Phoenix column. It is a contributing structure to National Register-listed Covington Historic District. The bridge is also recommended as individually eligible for listing in the National Register.

Figure 22. Hawthorne Street Bridge

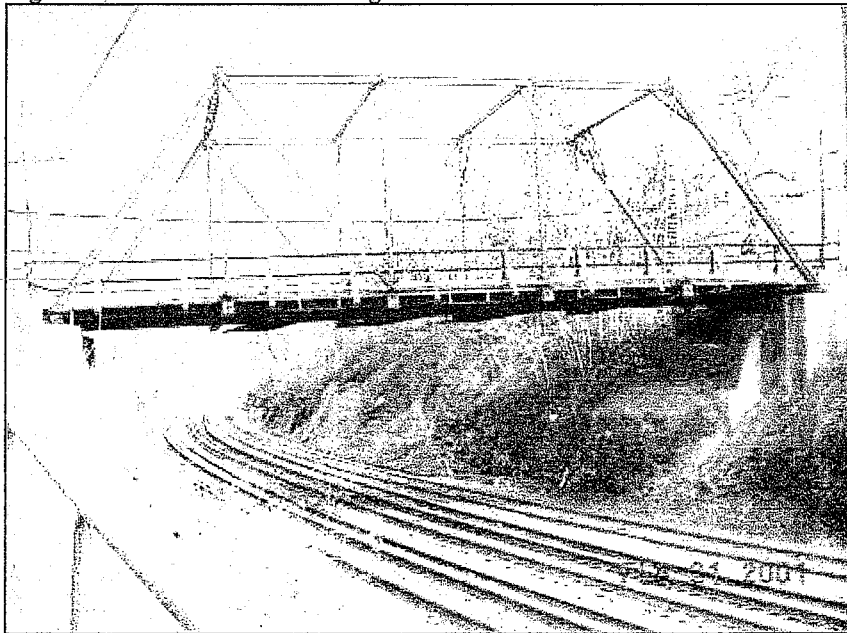
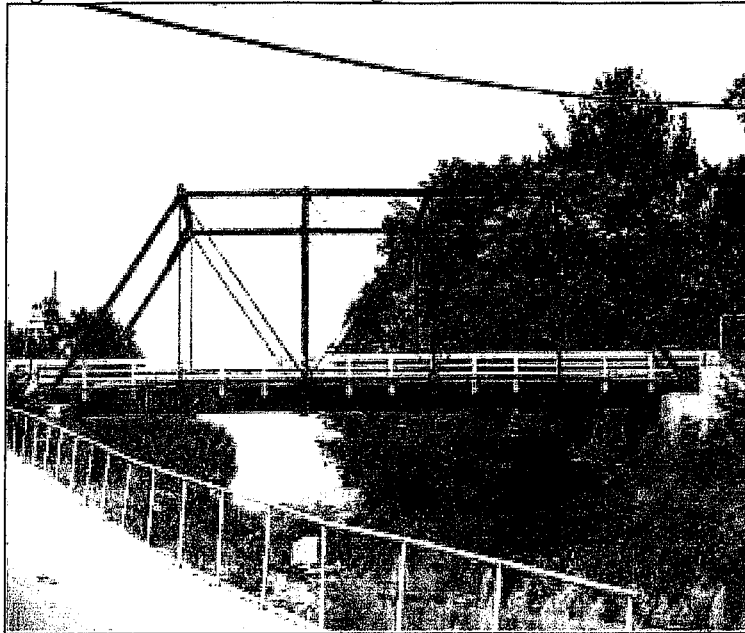


Figure 23. Hawthorne Street Bridge



Rehabilitation Project Information

Date/Cost for Rehabilitation:

Rehabilitation of the bridge began in February 2006 and was completed in November 2006, at a cost of \$1.24 million.

Project Designer:

VDOT Staunton District Structure & Bridge Office

Bridge Owner/Client:

The Hawthorne Street Bridge is within the limits of the City of Covington. Prior to the rehabilitation, the bridge was jointly owned by the CSX Railroad and the City. The City of Covington owned the bridge after completion of the project.

Source for Additional Information:

Ann L. Miller
Senior Research Scientist / Historian
Virginia Center for Transportation Innovation & Research
530 Edgemont Road
Charlottesville, Virginia 22903
Ann.Miller@VDOT.Virginia.gov

Project Information

- 1. Significant issues associated with project (e.g., bridge condition, reasoning behind decision to rehabilitate versus replacement, reasoning behind selected maintenance activity).**

In February 2001, after several large pieces of deck fell onto the railroad tracks, the city closed the bridge to make emergency repairs. The concrete sidewalk, whose weight is critical in the rating of the structure, also required rehabilitation. In 2004, the bridge was posted at seven tons with a recommendation to reduce the posting to five tons based on a recent load rating.

VDOT and the City of Covington both wanted to upgrade the Hawthorne Street Bridge. Because the CSX Railroad owned the structure, however, recommendations for adaptive use (on- or off-site), transferring ownership, discontinuance, or abandonment were not applicable, and because the bridge is a two-lane through truss, a structural upgrade to DOT standards was not feasible. The road alignment at each approach also was problematic (steep and sharp curves) and did not meet modern standards.

VDOT decided to rehabilitate the bridge superstructure with a new deck/stringer/floor-beam system and keep the historical thru-truss. The objective of the rehabilitation was to retain the historic cast iron Phoenix truss system while replacing the deck, floor beams, and stringers, thereby reducing the weight of the bridge and increasing its load capacity.

- 2. Project description, including purpose and need.**

The 2001 inspection report indicated that the structure was in poor condition. The deck and sidewalk were badly deteriorated and needed replacement. The weepholes were clogged and the structure needed cleaning. The lower chord moved under stress, and the bearings appeared to be frozen with rust, putting strain on the bridge. In addition, the structure had shifted downhill. Also, all pinned connections appeared to be frozen with rust, and there was pack rust and section loss in various members. The stringers and bearing seats had deteriorated and exhibited areas of section loss. Further, the abutments were cracked, spalled, delaminated, and undermined.

VDOT used a fiber-reinforced polymer composite cellular deck system to rehabilitate the Hawthorne Street Bridge. The most important characteristic of this application was reducing the bridge's self-weight, thereby raising the live load-carrying capacity of the bridge, by replacing the existing concrete deck with the fiber-reinforced polymer deck. The panel-to-panel connections were accomplished using full width, adhesively (structural urethane adhesive) bonded tongue and groove splices with scarfed edges.

- 3. Traffic levels, loading needs, and other related issues.**

The most important characteristic of the deck/beam/girder replacement was the reduction in self-weight of the bridge. This increased the posting (originally posted at a maximum load of seven tons) to 20 tons, thus allowing for use by emergency vehicles.

4. Section 106 effects finding (no adverse, adverse). Major issues discussed with State Historic Preservation Officer, and how issues were resolved.

VDOT, in consultation with the Virginia SHPO, determined that the proposed rehabilitation would have No Adverse Effect on the historic bridge.

5. Lessons Learned.

The Hawthorne Street Bridge is the first bridge in Virginia to use a fiber-reinforced polymer deck for vehicle traffic. The installation of this innovative and lighter-weight deck expanded the capacity and life expectancy of the bridge. The bridge is now deemed safe for emergency vehicles use, and its historic structure has been retained. Lessons learned from this project were:

- The fiber-reinforced polymer bridge deck system is a lightweight and safe alternative to conventional reinforced concrete bridge decks.
- The construction of a full-scale model of two bays of the five-bay Hawthorne Street Bridge provided valuable insights into the constructability of the adhesive panel-to-panel connections. The fabrication of the actual deck joints went smoothly, validating the use of the developed protocol on other fiber-reinforced polymer deck installations.
- Based on results obtained during the laboratory testing of a two-bay model, this adhesive bonding technique has the necessary serviceability and strength characteristics to be used in other similar bridge deck replacements. Testing only subjected the deck to one source of degradation (repeated loads), and future research should focus on the performance of the fiber-reinforced polymer deck system when subjected to varying moisture and temperature environments.
- One disadvantage regarding the use of this bridge deck system is its cost. The cost per square foot of the bridge deck system is significantly greater than a conventional reinforced concrete bridge deck of similar strength and stiffness. The best uses of this fiber-reinforced polymer bridge deck system are ones where the weight savings offset the higher initial material costs.

Ross Booth Memorial Bridge (aka Winfield Toll Bridge), Putman County, West Virginia

Location and Description of Setting:

The Ross Booth Memorial Bridge is located in Putnam County, West Virginia between the towns of Winfield and Red House. The bridge spans the Kanawha River. Formerly the Winfield Toll Bridge, the bridge was renamed in honor of Ross Booth in June of 2006. Mr. Booth worked as a carpenter on the Winfield Toll Bridge and also helped with the construction of many bridges located in the western section of I-64. It was on one of those bridges that Mr. Booth was injured thus ending his career as a carpenter.

The superstructure replacement of the adjacent Winfield Overpass, which was opened to traffic in 1958, was also included with the rehabilitation of the Ross Booth Memorial Bridge.

Description of Bridge:

The Ross Booth Memorial Bridge was built in 1955 by the John F. Beasley Construction Company. The Vincennes Company fabricated the steel and Harrington and Cortelyou, Inc. was contracted to design the bridge. Originally, the structure opened as a toll bridge. Entrance ramps to the toll bridge were utilized until the nearby Winfield Overpass Bridge was opened to traffic.

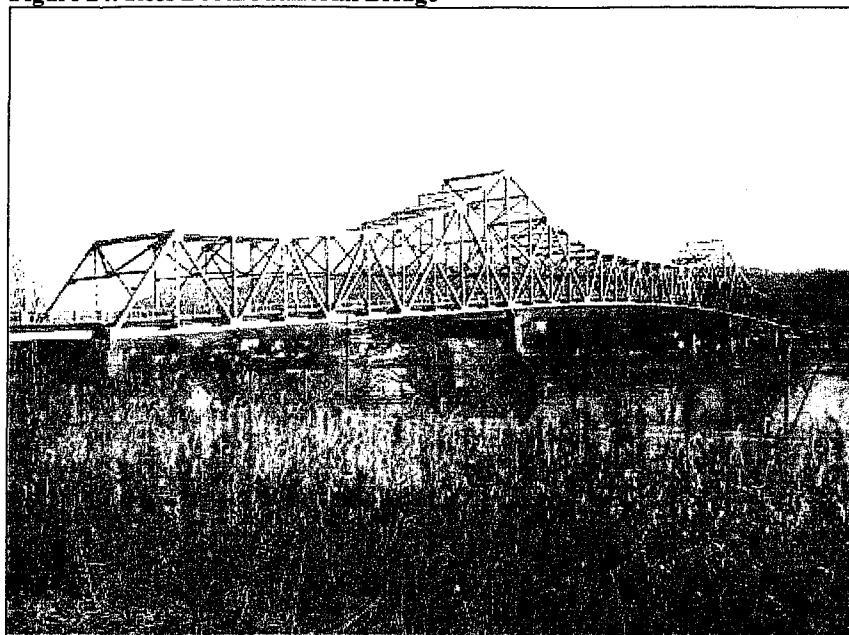
The Ross Booth Memorial Bridge consists of a three-span cantilever through-truss, flanked to the south by four 76-foot long continuous composite wide flange beam spans. The north end of the truss is flanked by two new composite continuous plate girder spans 58 feet and 33 feet in length. The cantilever through-truss consists of two anchor spans, each 245 feet in length. The main span is 462 feet in length, between pier centerlines. The main span is comprised of two 128-foot cantilever arms and a 205-foot suspended span. Truss members are made up of built-up or rolled steel sections. All truss connections are riveted except for the hangers and false chord members, which are pinned. The truss floor system consists of four longitudinal steel stringers that frame into transverse steel floorbeams at each lower panel point of the truss.

The structure is supported by reinforced concrete stub abutments and reinforced concrete rigid frame piers. The abutments and approach span piers are on steel piling, while the piers supporting the truss spans are on shale and gray sandstone. The approach span piers are double column open type frame piers, while the truss span piers have partial height concrete web walls. A five foot-wide concrete sidewalk runs along the bridge's downstream side, bordered by a rectangular parapet with an aluminum handrail, while an F-Style parapet with an aluminum handrail borders the upstream side of the bridge.

In the 1980s the bridge's navigation lighting system was replaced. In 1991, a latex modified concrete overlay was placed on the original bridge deck. In 1997 and 1998, several deteriorated steel cross beams were replaced and several deteriorated steel stringer webs were plated.

As noted above, the Winfield Overpass Bridge was opened to traffic in 1958. The two-lane structure over West Virginia 817 (formerly US 35) is a three span (44 foot, 82 foot, and 44 foot) continuous steel structure with four longitudinal steel beams, for an overall length of 174 feet from centerline to centerline of the abutment bearings.

Figure 24. Ross Booth Memorial Bridge



Rehabilitation Project Information

Date/Cost for Rehabilitation:

The Ross Booth Memorial Bridge underwent a major rehabilitation in 2010 at the cost of approximately \$15,220,500.00. This rehabilitation included the superstructure replacement of the Winfield Overpass Bridge and some additional road widening on West Virginia 817.

Project Designer:

The Ross Booth Memorial Bridge was rehabilitated with design plans by URS Consulting Engineers. Orders Construction Company of St. Albans, West Virginia conducted all construction work. This company also conducted the rehabilitation of the Winfield Overpass Bridge.

Bridge Owner/Client:

West Virginia Department of Transportation

Source for Additional Information:

Sondra Mullins
West Virginia Department of Transportation
Capitol Complex Building 5, Room 450
Charleston, West Virginia 25305
Sondra.L.Mullins@wv.gov

Project Information

1. **Significant issues associated with project (e.g., bridge condition, reasoning behind decision to rehabilitate versus replacement, reasoning behind selected maintenance activity).**

One of the major concerns about the project was the timing of the bridge closure during rehabilitation. Several public meetings were held in order to obtain public input on a full closure of the bridge for a shorter project time-frame versus a partial closing, extending the project duration to two construction seasons. Additional meetings were held with emergency personnel and city officials. West Virginia DOT decided to close the bridge and finish the project as quickly as possible, within a single construction season. The alternative, to allow one-way traffic during construction, would have extended the project to three years.

2. **Project description, including purpose and need.**

The Ross Booth Memorial Bridge project consisted of the following:

- Replacing selected stringers (longitudinal floor system)
- Replacing selected floor beams (transverse floor system beams)
- Replacing selected bearings
- Replacing the deck
- Cleaning and painting the existing truss to resemble the original paint color
- Adding a sidewalk with a new pedestrian railing
- Installing a redundant hanger system for the suspended middle span of the bridge
- Conducting substructure work on the abutments and piers

The Winfield Overpass Bridge rehabilitation included replacing the superstructure and adding a sidewalk, while giving a greater vertical clearance.

The overall objective of the rehabilitation projects was to improve the safety and longevity of the bridges.

3. **Traffic levels, loading needs, and other related issues.**

The bridges were originally designed for what are presently HS-20 trucks weighing 72,000 pounds. The replaced bridge elements on the bridge were designed for the current AASHTO LRFD live loads. This loading is a combination of HS-20 trucks and a lane loading of 640 pounds per foot.

4. **Section 106 effects finding (no adverse, adverse). Major issues discussed with State Historic Preservation Officer, and how issues were resolved.**

The Section 106 process was initiated in May 2008 for the rehabilitation of the Ross Booth Memorial Bridge and the superstructure replacement of the Winfield Overpass Bridge. The West Virginia SHPO concurred with the West Virginia DOT determination that the two bridges were eligible for listing in the National Register. The West Virginia DOT, in consultation with the SHPO, determined that the proposed rehabilitation of the two structures would result in an Adverse Effect. This finding was based primarily on the SHPO's concerns about the final railing design for the structures.

5. Lessons Learned.

The West Virginia DOT consulted with the SHPO early in the project development process. As a result, the DOT was able to quickly resolve the adverse effects to the bridges, and complete the project without any major issues.

LETTER K

KENNETH E. NILES

201 West Watmaugh Road
Sonoma, California 95476

November 13, 2012

Rich Stabler
Sonoma County Permit and Resource Development
2550 Ventura Ave.
Santa Rosa, CA 95403

Re: DEIR – Watmaugh Road Bridge over Sonoma Creek

Dear Rich,

K - 1

On Page 7.2 Alternative 2 and page 4 – 12, and other pages that discuss biological impacts – Please include that: A valley Oak well over 100 years old with a seven (7) foot diameter could be affected due to the encroachment on its root zone. Additionally, another heritage oak would have to be removed as

K - 2

it lies within the proposed roadway. I know you realize that Alternative 5 is a “joke” because it is absurd. And any sound mind would agree that a cantilever bike path would be the obvious choice; so why is it even included?

K - 3

As I mentioned to you before, please include Tom O’Kane’s letter about Cal Trans accepting a 30 foot roadway, as it is evidence that a safe 30 foot wide bridge could be approved. It would help keep vehicles in their lane, slow traffic, and make it safer for residences as well as drivers of other vehicles that could collide. It would also help comply with Supervisor Rabbit’s concern to make the steel trusses appear to “belong.”

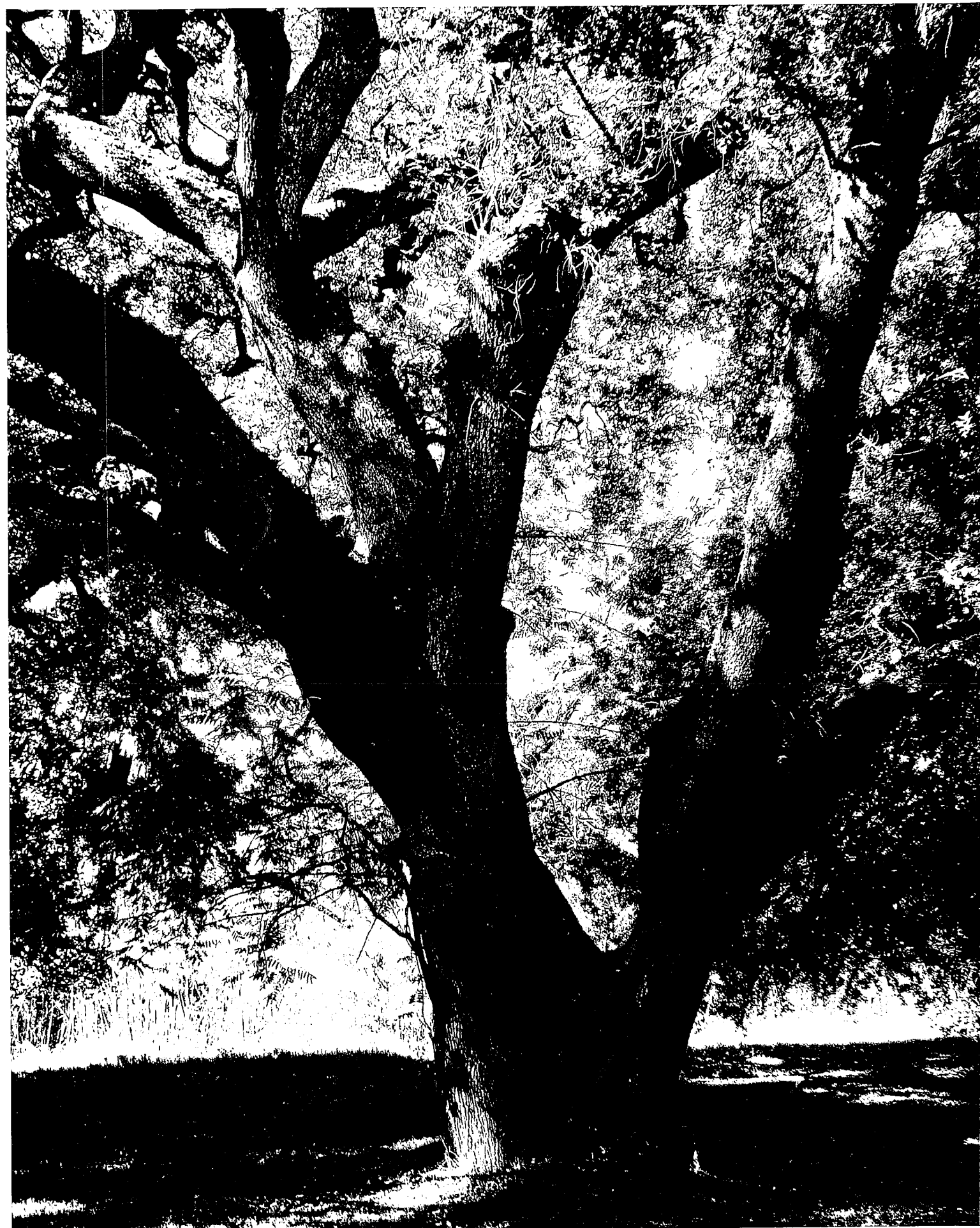
Please review the Baseline Consulting report and include it in the E.I.R.

Thank you for your cooperation.

Sincerely,



Ken Niles



Comments, Amendment, and Specific
Recommendations for the D.E.I.R.

Page 1 – 8 Item 1.4 Other Agencies

Agencies to be contacted for review need also to include the Sonoma Ecology Center and any Sonoma Creek Associations for preservation of Sonoma Creek.

Page 2 – 1 Summary of the proposed project

The summary of the proposed project needs to include the wishes of the majority of the Board of Supervisors which is to design the bridge so that the steel trusses appear meaningful and authentic; that they do not appear "tacked on". The simulated photo B dwarfs the steel trusses and shows the guardrail extending to the entrance to the historic Wedekind House. The architects, engineers, County Design Review, and Board of Supervisors need to respect the history of the Bridge and trusses in approving the final design due to the widening of the bridge by 12 feet. The entrance guard rails could be recreated to appear to be similar to the authentic concrete rails. Can the guardrails be minimized so that the trusses are more visible? What is the design review process and which jurisdictions approve the preliminary design? It should require Landmark Commission approval as well as the public. Because of the 12 foot widening, the EIR suggests there may be a requirement to condemn private property. The project could be simplified if the project complied with Cal Trans acceptance of 4 foot shoulders, which would help in the visual concept without jeopardizing safety. It should also be noted that by the admission of County Staff, (per e-mail from Tom O'Kane) that Cal Trans has approved a 30 Foot width. This width could accomplish:

1. Help increase the appearance of authenticity of the trusses.
2. Discourage speeders from crossing over the shoulder line.
3. Possibly eliminate the taking of any private property
4. Help preserve the biological resources including mature oak trees

Page 4.3 Biological Resources

According to fish biologists, the winter steelhead run can be jeopardized by construction work in the "non-flowing" water areas due to general disturbance of the area. The Sonoma Creek Steelhead run has been compromised by negative elements for many years to the extent that it is extremely fragile.

The country of New Zealand is a well-known Rainbow Trout fishery today thanks to the Steelhead that spawned in Sonoma Creek. In 1883, a resident from Glen Ellen arranged to have steelhead eggs transported and placed in the rivers of New Zealand.

Any work done in the streambed must be evaluated first, then monitored by an expert fish biologist to help preserve the winter steelhead run and its history. If culverts are planned to allow the stream to flow, they must be removed during the winter steelhead run. Any disturbance in the streambed will have a significant impact on the fishery.

“A search of records and literature in both New Zealand and America reveals rather conclusive evidence that the 1883 shipment of trout eggs to New Zealand originated from steelhead rainbow trout in Sonoma Creek, a tributary to San Francisco Bay.”

Frazer, Heitson, and Scott 1977

This historical information needs to be included in the draft. The public needs to be made aware of the potential damage to the fragile Sonoma Creek Fishery. Restoring piers is considerably less intrusive and damaging than removing and constructing new piers. The State Fish and Game and other biological resources need to be informed of other engineers' reports.

Page 4 - 5

35. States that there will be no increase in traffic levels.

Watmaugh Road is a Rural Minor Collector as stated in the General Plan, not a speedway for vehicles to go to Napa and Vallejo. Vehicles will drive faster which will cause safety hazards. Unless measures are taken to slow eastbound traffic across the bridge, a safety hazard will be created to private driveways next to the bridge. What is proposed to prevent drivers from speeding faster than 30 mph?

The probable increase in speed needs to be addressed as the safety of residents living next to the bridge (as well as all drivers of oncoming vehicles) will be in jeopardy by the increase in speed that will naturally occur with the increase in width. (One of the successful methods to control speeders is to install speed reduction bumps.) Specific mitigating methods for speed reduction is critical for the safety of the public.

Page 4-17 Work Days & Hours proposed on Saturdays

Residents living in the 4 historical homes next to the bridge are in their late 70's and 80's and deserve a weekend rest from the noise and deleterious effect it will have on the mental and physical health. It appalls us to believe the County Staff would allow this invasive work to take place at any time over the weekend. No work of any kind should be allowed on weekends.

A 7:00 AM beginning is disturbing and offensive to seniors in their 70's and 80's. Lorraine Wedekind was informed by a Cal Trans representative that private property owners have the right to expect reasonable working hours and days if they reside next to the project.

Page 5A – 10 Aesthetics Impact No. 2

The simulated photo B does not accomplish the narrative of Mitigation Measure A. Additionally, the photo that was shown to the Landmarks Commission and the general public does not show a rise of 4 feet and how it will affect the driveway and safety of the homes next to the bridge. The bridge height is already about 1 ½ to 2 feet higher than the roadway elevation. The driveway to the private homes would be extremely unsafe if the elevation was raised 4 feet.

Page 5A – 10 Aesthetics Mitigation Measure A-2

This statement does not mention that the steel trusses shall be designed so that they appear as an integral section of the bridge. In the effort to make this bridge look “historic” the approach guard rails could be designed to reflect the original historic concrete rails and not the “New Period” lattice rails described in Aesthetics Mitigation Measure A-2

Page 5B-3

It is probable that the bridge does meet more than one of the criteria outlined by Tom Origer due to the significance of the Pony Steel Trusses and the 4 historic homes built adjacent to the bridge. The EIR should request a determination of the current criteria from one other expert in their field as one opinion is not conclusive.

Page 5B – 8

Under “Mitigation Monitoring” it states “most of the project site has been disturbed by past construction”. No construction has occurred in the stream bed for the past 83 years. Since arrowheads, bowls, utensils & pestles have been discovered near the site in Sonoma Creek, what measures will be taken to “sift” through all the soil that will be removed? It is possible that valuable artifacts and Native American human remains could be discovered.

Page 5C – 9 Discussion

In accordance with Page 3.1 the FEMA Flood profile states that the 100-year storm water surface is established at elevation 45. During the flood of 2005 (which was considered a 100 year flood) at the crest of the water flowing under the bridge the height was about 4

feet below the bottom of the bridge. What is the rationale for increasing the height of the bridge an additional 4 feet to further take away from the natural historic resource and which is also costly to undertake unnecessary reconstruction of the roadway?. The current bridge deck is 49 feet; 4 feet higher than the FEMA requirements and 8 feet higher than the 100-year flood experienced.

The existing bridge can't flood as demonstrated by the 100 year flood of 2005! This is contrary to the statement that "the project would reduce flood hazards. The project could increase flood hazards and cannot be properly mitigated for contiguous property owners if raised 4 feet.

If an entity other than FEMA requires an increase of four feet in the height of the bridge, even though the current elevation complies with FEMA requirements, then a request for exemption should be made. Some of the justifications are the following:

1. When another 100 year flood occurs, three homes (2 historical) will be more subjected to serious flooding due to the fill that will be required causing a "damming" effect along about 200 feet of roadway. (In order to provide a smooth transition to the existing road elevation from the bridge would require at least 100 feet on either side of the bridge.)
2. Sight Reduction: Raising the bridge four feet will reduce driver's vertical line of sight. This is counter-productive to the purpose of building a new bridge i.e. **SAFETY**. Also, cars will naturally accelerate and speed on the down-hill side of the bridge.
3. Common Sense: During the 100 year flood in 2005, our property next to the bridge flooded due to the creek overflowing its banks and after wading in water on our property, I walked up a non-flooded road to the bridge. At the crest of the flood, I stood on the bridge, observed that the water was about 4 feet below the bottom of the bridge.
4. Additional Cost: Unknown; but significant

Possible solutions: It may be possible to engage the Army Corp of Engineers to provide levees for the property owners next to the creek or design the bridge so it has beam depths similar to the existing bridge.

The Wedekinds could not safely drive up a 4 foot ramp from their driveway and the Wedekind heirs should not be subjected to damaging or even losing their 120 year historic home due to the damming effect that may occur with the increase in elevation.

The statement in the first paragraph: "the bridge would be at a level that would be less significant and would generally avoid the significant impact to the historic resource associated with the proposed project."

This is not accurate. The Landmarks Commission and Sonoma County League for Historic Preservation have adamantly stated that the historic resource would be destroyed by building a modern bridge next to it. This fact needs to be stated in the report.

It is stated that the Alternative 2 would retain Local Landmark Stature. But due to the significant altering of the immediate area, the scenic resource is destroyed which destroys its historic value, and the bridge could no longer qualify as a historic landmark.

In the same paragraph it needs to address the delay in the project due to the need to acquire private property through appraisals, court delays, and ultimately eminent domain. Additionally there is no mention that the proposed project could require the removal of "Heritage" Cypress trees that are over 130 years old. (Same for Page 7-12 and Page 7-13). The Cypress trees that create the Watmaugh Road border were planted in the 1870's and after 130 years are still in good health. The diameter of some of the trees is now approximately 7 feet and circumference close to 50 feet. No mitigating measures can replace these heritage trees so careful surveying and road alignment is necessary to preserve them. None of the alternatives except alternative #3 can preserve them. This was not mentioned in the EIR, and needs to be.

This paragraph contradicts the expert opinions of engineers, who have evaluated the bridge. Please include all engineers opinions.

1. This alternative most likely does not require the replacement of existing piers. (see attached Engineering report)
2. The restoration will not significantly alter the appearance of the historic bridge. Only the people in the creek would notice the alteration of the piers. Car drivers and passengers would not detect any changes.

3. Estimated construction according to expert bridge consultants is between 3 and 4 million. Staff statement of 6.1 million is likely an exaggerated amount and is not backed up by accurate estimates based on the most economical method of restoring the bridge. The public deserves to know that qualified expert opinions differ from the Staff. (Letters are attached).

Page 7 – 12

Alternative 2 does not mention that it would cause a condemnation of private property by eminent domain. This can't avoid a significant delay in the project due to appraisals, litigation, and court delays.

Page 7 – 13 Table 7.2

In Alternatives 2,4,5,6 no mention is made of the requirements to remove Heritage Trees which are approximately 130 years old. Some of these trees have diameters of 6 to 7 feet, which if removed, would cause serious damage to the biological history of Sonoma Valley.

Until the survey of the proposed project is completed, it is unknown if there are historical trees within the proposed roadway.

Alternative 2 needs to include language similar to “would require condemnation of private property, which would delay the project due to appraisals, litigation, court delays, and ultimately the eminent domain process.

Under Alternative 3 it is stated that it would “not reduce impacts below the level of the proposed project.” This statement is not accurate. Please evaluate more carefully and assuming the piers do not have to be replaced (according to other expert engineers, they do not have to be replaced) then the historic impacts of Alternative 3 are considerably less than the proposed project.

Thank you for reading these comments and I hope that you will address them in your final draft.

DEPARTMENT OF TRANSPORTATION

DIVISION OF LOCAL ASSISTANCE

P.O. BOX 942873, MS-1

SACRAMENTO, CA 94273-0001

PHONE (916) 653-1776

FAX (916) 654-2409

TTY 711

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August 20, 2012

To All Cities and Counties in California

Dear Directors:

Under the new federal "Moving Ahead for Progress in the 21st Century Act" (MAP-21), federal funds are available to rehabilitate or replace deficient bridges in California. The purpose of this letter is to request that your agency review your inventory of public highway bridges that potentially need replacement, rehabilitation, or preventive maintenance. Your agency should take action to address any public safety issues and to extend the life of your agency's bridge inventory.

Caltrans has posted on its Structures Maintenance and Investigations (SM&I) web site the inventory of all local public highway bridges. Bridges eligible for major reconstruction or replacement have a Sufficiency Rating (SR) less than or equal to 80 and are flagged Structurally Deficient (SD) or Functionally Obsolete (FO) by federal inspection coding standards. These bridges have deficiencies that should be addressed by each bridge owner. The bridge list may be found on this link:

<http://www.dot.ca.gov/hq/structur/strmaint/localbrlist.pdf>

Please review Chapter 6 of the Local Assistance Program Guidelines, for application forms and requirements. Bridges that are off the federal aid system are eligible for 100% federal reimbursement.

Applications for federal funds should be submitted to your District Local Assistance Engineer (DLAE), no later than September 30th, and January 31st of each year to ensure timely inclusion into the Local Assistance Bridge Program and the Federal Transportation Improvement Program (FTIP). See Office Bulletin 10-01 for the Bridge Program-FTIP procedures.

Caltrans also requests your agency to develop a bridge preventive maintenance program to keep bridges that are in good condition from becoming deficient. Guidelines/requirements for requesting federal funds to develop local agency bridge preventive maintenance programs are in the Local Assistance HBP web site:

<http://www.dot.ca.gov/hq/LocalPrograms/hbrr99hbrr99a.htm>

"Caltrans improves mobility across California"

All Cities and Counties in California
August 20, 2012
Page 2

If you have any questions, please contact your District Local Assistance Engineer.

Sincerely,

A handwritten signature in black ink, appearing to read 'Denix D. Anbiah', with a long, sweeping horizontal stroke extending to the right.

DENIX D. ANBIAH
Chief
Division of Local Assistance

September 7, 2010

Watmaugh Road Bridge Retrofit

Bishwendu K. Paul, S. E. from Earthquake and Structures, Inc. has visited the bridge site and has provided a visual evaluation of the state of conditions of the bridge and its surrounding area.

The following conditions have been observed:

1. Spalling on the edges of girder and spalls with rusted rebar.
2. Fine horizontal cracks in west abutment.
3. Scour problem: Lack of maintenance of the bank might have contributed to the problem. Simple rip-rap protection could have eliminated or at least lessen the scour problem that now exists. However, hydraulic studies and appropriate mitigation program would prevent future scouring.

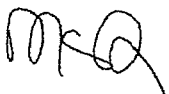
Structural deficiencies commonly known to exist in older bridges are:

- Inadequate confinement – refer to non-ductile behavior of piers
- Absence of reinforcement in the top of footing – inadequate capacity to resist flexure thereby limiting the capacity of the piers subjected to seismic loads.
- Inadequate footing support capacity – is it the inadequate geotechnical capacity? A geotechnical investigation would determine the structural adequacy of the existing footing.

In steel bridges, component of bridge strengthening may include connections strengthening of the truss and replace lacings with plates for truss members. In lieu of strengthening the truss, consideration may be given to base isolation, i.e. provide isolation bearings instead of the support bearings.

To the best of our knowledge, there is definitely a possibility for a retrofit as opposed to replacement with far less money compared to build a new bridge. Based on available information and best of our judgment, the Watmaugh Road Bridge can be retrofitted with an estimated cost of 3 million dollars versus the reported 5 million dollar range in current dollar value for a new bridge.

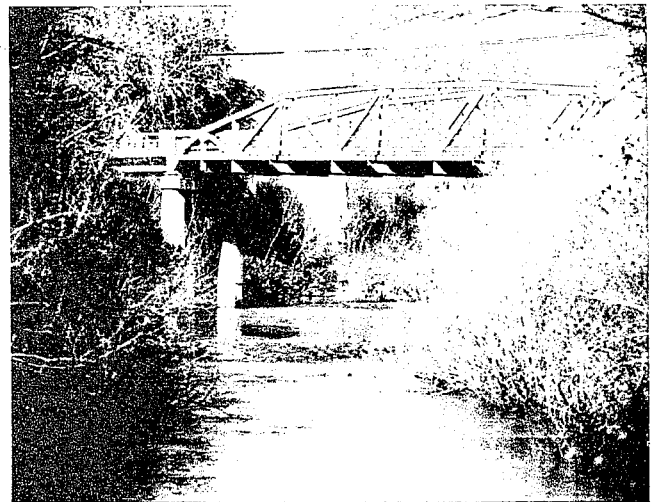
Respectfully submitted,



Bishwendu K. Paul,

Structural Engineer S3093 Exp 9/11

WATMAUGH ROAD BRIDGE



Bishwendu K. Paul, S. E., C. E., President

Education

- M. Eng. in Structural Engineering, UC - Berkeley 1980
- M.S. Structural Engineering and Construction, Asian Institute of Technology, Bangkok, Thailand, 1976
- B.S. Civil Engineering, Bangladesh University of Engineering and Technology, Dacca, Bangladesh, 1973

Registrations

- SE - California S3093, CE - California C35258, CE/SE - Nevada 01587

Relevant Experience

- Badillo Street, Los Angeles, California - Seismic retrofit of Badillo Street Bridge over "Big Dalton Wash".
- First Street, Los Angeles, California - Seismic retrofit of the First Street Bridge over "Little Dalton Wash".
- Alameda Creek Bridges, Pleasanton, CA; 100 and 150 feet long - Structural Strengthening for HS20-44 loading.
- Azusa Canyon Bridge, Los Angeles, California - Independent check of structural analysis, design, specifications, quantities, and construction documents.
- Claremont Tunnel Upgrade, EBMUD, Oakland/Berkeley, California - Seismically retrofitting this critical water conveyance facility that crosses the Hayward Fault.
- Walnut Creek- San Ramon Valley Transmission Improvements, EBMUD, CA- Seismic analysis, design of the pipe joints at shaft, pipeline stress analysis at deep alluvial soil, and in rock.
- Hegenberger Gateway Project, City of Oakland, CA - Engineering services for landscape and streetscape improvements.
- COIT Tower, San Francisco, CA - Seismic safety evaluation of 60-year-old historic tower.
- Pinole Shopping Center, CA - Multi-commercial wood and concrete building, 30,000 sq. ft.
- KGO and KPIX Earth Station and Relay Facilities, El Cerrito, CA - Planning and design of pile foundation.

SATINDER P. SINGH, Ph. D., P. E.

Education

Ph.D., Structural Engineering, University of California at Berkeley, 1994

M.S., Structural Engineering, Wayne State University, Detroit, 1988

B.S., Civil Engineering, Punjab University, India, 1986

Registration

Civil Engineer: California C 56929

Relevant Experience

- Iron Horse Trail Pedestrian Arch Bridge – Pleasant Hill, CA
- Performing the independent check of the 270 ft. span pedestrian bridge with steel arches supporting the composite deck with steel cables. The bridge was analyzed for service as well as seismic loads and evaluated the bridge for the linear as well as nonlinear response.
- Nonlinear Analysis and Construction Administration of Bay Bridge – San Francisco, CA
- Performed nonlinear time-history and pushover analysis of the pile groups and hinges for the long span skyway structure of the new East Span of the San Francisco –Oakland Bay Bridge. Provided construction administration for the segmental bridge including responses to RFIs, coordination with Caltrans, and review of submittals and various steel and segmental shop drawings.
- Design of New Bridge and Widening of Bridges, I-238 Widening – Castro Valley, CA
- Designed a new prestressed concrete bridge over Mission Boulevard for the I-238 widening. Provided independent design check for four reinforced and prestressed concrete bridges.
- Seismic Evaluation of Bridges – Valley Transportation Authority, CA
- Performed the seismic evaluation of four concrete bridges including Tasman Bridge, Route 87 Connector, Willow Street Viaduct, and Capitol Expressway.
- Structural Design – West Span San Francisco Bay Bridge, CA
- Provided construction support for the structural design of the complex temporary structures and high-tech devices for the San Francisco-Oakland Bay Bridge West Span. Retrofit cost \$160 million.
- Structural Construction – Sacramento River Bridge, Rio Vista, CA
- Provided construction administration support for the isolation bearings, dampers, and construction related issues for this lift span bridge currently under construction. Bridge retrofit cost \$5 million.

SATINDER P. SINGH, Ph. D., P. E. cont.

- Constructability Review of Steel Bridges – Toll Bridges, Oakland, CA
- Performed the constructability review for the seismic retrofit of Richmond San Rafael Bridge. Recommended a redesign of the dampers and established the analysis and design criteria for the new design. Redesigned the YBI tunnel retrofit at the Bay Bridge to comply with the permits and perform major construction without significant lane closures during the day.
- PS & E Review – Toll Bridges, Oakland, CA
- Performed the PS&E review of San Francisco Oakland Bay, Richmond San Rafael, Carquinez, and San Diego Coronado Toll Bridges. Specifically redesigned the energy dissipation devices on Richmond San Rafael, thus preventing future delays during construction. Reviewed the structural constructability of these bridges. The construction cost varies from \$50 million to \$350 million for each bridge.
- Conceptual Retrofit Design - Colton Interchange, CA
- Studied and recommended a conceptual retrofit design of four 700 to 800 ft span bridges in Colton Interchange at Sacramento. The reinforced concrete bridges with typical span of approximately 70 ft span over a fault zone.
- Design of New Bridge - ART/BART, San Francisco International Airport, CA
- Designed the two-level Airport Rail Transit & BART Combined Guideway at San Francisco International Airport. The substructure of the 980 ft long double deck viaduct comprises of the cast-in-place partially prestressed concrete moment-resisting frames supported on pile foundations.
- Seismic Evaluation and Retrofit Design - Sacramento River Bridge, Rio Vista, CA
- Performed seismic evaluation of the Sacramento River Bridge at Rio Vista. The 2,500 ft long steel bridge has a 300 ft long lift span and towers that rise 173 ft above the roadway deck. Extensive evaluation of the bridge consisted of linear and nonlinear, static and dynamic analyses. Retrofit design used seismic isolation of the truss spans and passive energy dissipaters at the tower column base connections to control the uplift during the rocking response of towers.
- Independent Check - 5th & 6th Street Viaduct, Oakland, CA
- Performed the independent design check of the 5th and 6th Street Viaduct in Oakland. The viaduct consists of six structures built between the years 1953 and 1984. The seismic retrofit of the 2,820 ft long structure with overall width between 125 and 227 ft consists of column casings, soffit ties between separate structures, seat extenders, and partial realignment of girders at median.
- Caltrans Study - Earthquake Analysis and Response of Multi-Frame Bridges



P.O. Box 207, 13750 Arnold Drive, Suite 3, Glen Ellen, CA 95442
(707) 996-9967 • baseline@vom.com

County of Sonoma Board of Supervisors
575 Administration Drive, Room 100 A
Santa Rosa, CA 95403

November 8, 2012

Dear Sonoma County Board of Supervisors,

I have worked for many years as a historical ecologist, both with the Sonoma Ecology Center and now as an independent consultant. My work allows me to bring a long-term perspective to current environmental issues. I am writing this letter to recommend some refinements and additions to the 'Watmaugh Bridge Over Sonoma Creek Replacement Project Environmental Impact Report.'

It's obvious that a tremendous amount of effort went into creating this report. Choosing an alternative that takes into account necessary repairs to the bridge, its value as a cultural resource, and potential impacts to salmonid habitat, is a very difficult task.

I understand that, in all likelihood, this project will move forward. In that event, I would like to provide some background information on Sonoma Creek's fragile fisheries and aquatic resources, and offer recommendations for reinforcing the safeguards set forth in the Draft Environmental Impact Report.

History of Sonoma Creek's Fishery and Aquatic Resources: The waters of the Bay Area were once abundant with steelhead, trout, and salmon. Less than fifty years ago, Sonoma Valley was known for having some of the best fishing in the region. According to the Center for Ecosystem Management and Restoration (CEMAR), the Sonoma Creek watershed probably supported the Bay Area's "second largest steelhead run" (Becker 2007). Local elders can still recall "catching ten trout before breakfast" from Sonoma Creek. Even as other Bay Area watersheds saw declines, Sonoma's trout and steelhead remained plentiful into the 1960s (Dawson 2002).

By the early 1970s, Sonoma Creek began seeing a rapid drop in its steelhead trout population. Lamenting this development, Bill Lynch, editor of the Sonoma Index-Tribune and an avid fisherman, wrote an editorial titled: "Obituary of a Trout Stream" in 1972. Human impacts are known to be major factors in this decline. These include: water pollution from toxins and sediment; migration barriers created by the construction of bridges, culverts and dams; and reduced summer flows caused by landowners pumping water directly from the creeks (Micheli 2006).

The dramatic decline of steelhead has been documented throughout the central California coast; this population is currently listed as threatened by the National Marine Fisheries Service. In 2005, Sonoma Creek was designated as "Critical Habitat" for the Central California Coast Steelhead (National Marine Fisheries Service 2012). Chinook, another salmonid, have been

observed spawning in the watershed several times in the last ten years and some biologists believe that the endangered coho salmon was once present here as well.

Besides providing critical salmonid habitat, Sonoma Creek is also one of the last refuges of the California Freshwater Shrimp. While formerly more widespread and abundant, Freshwater Shrimp have been so severely impacted by human activity that they have been on the Endangered Species list for nearly 25 years. Today this species exists in a handful of streams in Marin, Sonoma, and Napa counties (National Fish and Wildlife Service 2012). California Freshwater Shrimp have been found in Sonoma Creek in the vicinity of the project (Cox 2012).

CEMAR recently designated Sonoma Valley as one of eight 'anchor watersheds' in the San Francisco Bay Area. Such watersheds contain habitat critical to the recovery of the Bay Area's salmonid fishery and are considered to be places where restoration efforts will have the most powerful effect on conserving and restoring steelhead (Becker 2007).

Investment in Restoration: That Sonoma Creek's freshwater habitat is highly valued by local citizens, organizations, and local, state and federal agencies is amply demonstrated by the ongoing efforts being made to restore it.

It is estimated that over the last decade, as much as \$20 million have been spent on researching the causes and beginning the restoration of Sonoma Creek's fishery. The Sonoma Ecology Center alone received over \$7 million in funding during that period for restoration (Cornwall 2012). Other agencies and organizations which have contributed to this effort include: California Department of Fish and Wildlife; California Coastal Conservancy; Sonoma County Agricultural Preservation and Open Space District; the National Fish and Wildlife Service; San Francisco Bay Joint Venture; California Wildlife Conservation Board; the Association of Bay Area Governments; Trout Unlimited; and the Sonoma Land Trust.

Recommendations: Considering the value of Sonoma Creek's fishery and the continuing investment being made to restore it, it is important that every effort be made to protect its resources against further harm. The Environmental Impact Report found that the potential impacts to Sonoma Creek's fishery from the Watmaugh Bridge Project were significant, and detailed the mitigation measures needed to reduce these to "less than significant." With this goal in mind, I recommend the following revisions and refinements to the 'Watmaugh Bridge Over Sonoma Creek Replacement Project Environmental Impact Report:'

General Recommendations

- 1) Provide Frequent and Regular Monitoring: Given that accidental but substantial impacts can and have occurred very quickly in construction zones, it is recommended that the site be regularly, frequently, and perhaps continuously monitored during construction. This will ensure workers are closely following the safeguards outlined in the EIR. Such monitoring should be done by the county or a qualified third party approved by the county.
- 2) Establish Frequent and Regular Communication Between Monitoring Staff and Construction Workers: Good communication with heavy equipment operators and other workers on the ground is essential to implementing the safeguards outlined in the EIR. Therefore

communication lines between these workers, their supervisors, and the monitoring staff mentioned in 1) should be established before any ground is broken. Communication between monitoring staff and workers should occur regularly and frequently during construction, as often as daily during sensitive phases of the project.

Specific Recommendations

Section 3.2: Construction Methods

- 1) Move fish and freshwater shrimp to the highest quality nearby habitat, whether upstream or downstream ("fish trapped in the dewatered part of the stream will be collected by a qualified and permitted individual and moved downstream of the work area"). Water temperature and possibly other stress factors are more likely to increase downstream of the work area.
- 2) Protect high quality freshwater shrimp habitat: places where the bank has eroded laterally below the waterline, where tree roots stabilize the bank above and finer roots are exposed underwater are particularly important shrimp habitat. These sites provide both prime feeding areas and 'winter refugia' where freshwater shrimp can shelter from high flows. Given that freshwater shrimp have been found in the vicinity of the project area, these sites should be protected regardless of whether or not shrimp are currently present in the project area.
- 3) Minimize or eliminate the use of box culverts. Ensure any culverts used are removed by October 15th: box culverts commonly cause increased bed erosion on their downstream ends, increasing suspended sediment in the water, a stress factor for salmonids, freshwater shrimp, and other aquatic life. While not a major concern during summer low flow, it becomes one during the higher flows of autumn and winter. Therefore it is recommended that alternatives to box culverts be used in the diversion trench(es), such as three-sided culverts which leave the bed of the channel intact. All culverts should be removed before higher flows begin.

Section 4.4

- 4) Re-evaluate Construction Window: The EIR limits work in the flowing water from June 15 to October 15. This window potentially impacts Freshwater Shrimp during their September breeding season, a particularly sensitive time in their lifecycle (Serpa 1996). If endangered Freshwater Shrimp are present at the site, then work in the flowing water should not occur in September.
- 5) Undertake a Freshwater Shrimp Presence and Habitat Survey at the site by qualified personnel to determine their presence or absence, to inform Specific Recommendation 4. This survey would also demarcate areas of high quality shrimp habitat to be protected during construction, to inform Specific Recommendation 2.
- 6) Provide a Detailed Plan for Monitoring pH: Biological Resources: "Water that comes in contact with wet concrete and has a pH greater than 9.0 must be pumped to a truck or by hose for upland disposal or treatment." Include a plan in the EIR for testing the pH of the water during construction. This way workmen can be alerted to a high pH and undertake the protective measures outlined.

Thank you for considering these refinements and revisions to the Environmental Impact Report. It is my hope that these will ensure the preservation of important natural resources for future generations. Please don't hesitate to contact me with any questions you may have (references on following page).

Sincerely,

Arthur Dawson
Historical Ecologist & Principal Consultant
Baseline Consulting
Glen Ellen, California

Cc: National Fish and Wildlife Service
California Department of Fish & Wildlife
Sonoma County Permit & Resource Management Department

References

- Becker, Gordon et. al. 2007 "San Francisco Estuary Watersheds Evaluation: Identifying Promising Locations for Steelhead Restoration in Tributaries of the San Francisco Estuary." Center for Ecosystem Management and Restoration. Oakland, CA.
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LETTER L

Page 1 of 5

November 14, 2012

Rich Stabler, Environmental Specialist
Sonoma County Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

And

Supervisor Valerie Brown
Supervisor David Rabbitt
Supervisor Shirlee Zane
Supervisor Mike McGuire
Supervisor Efren Carrillo
Sonoma County Board of Supervisors
575 Administration Drive, Room 100 A
Santa Rosa, CA 95403

RE: Response to Draft Environmental Impact Report
Watmaugh Road Bridge Over Sonoma Creek Replacement Project 9/2012

Dear Mr. Stabler and Respective Supervisors,

I am writing in response to the DEIR for the Watmaugh Road Bridge project. The purpose of my letter is to provide specific comments as they relate to the effects of the proposed changes to the historic Watmaugh Bridge as described in the DEIR. The issues surrounding the seismic retrofit/rehabilitation of the historic bridge alternate project are especially concerning and those concerns are outlined below.

The basis for discussion should begin with the foundation of policy outlined in the by-laws of the Sonoma County Landmarks Commission that states the following purpose of the Commission:

“To protect those structures, groups of structures, sites, and areas that are reminders of past eras, events, and persons important in local, state, or national history; or which provide significant examples of architectural styles of the past; or which are unique and irreplaceable assets to the County and its communities (see Ordinance #1768, adopted April 23, 1974).”

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In addition, it is the policy of Sonoma County as stated in the Sonoma County Landmarks Commission's by-laws Section 2b-2, “review shall be in accordance with the standards and criteria adopted by the Landmarks Commission, which are based on the U.S. Secretary of the Interior's guidelines.” With this knowledge, I submit that the DEIR does not follow it's own policy of consideration of the

L - 1

policy outlined above, thus the DEIR is insufficient in its findings regarding the Watmaugh Road Bridge as Sonoma County Historic Landmark #103, and as residing as part of the Sonoma County Historic Thematic Bridge District Resolution of 1998, that this structure has been identified as an important Sonoma County Landmark and must be treated as such based on County policy.

AESTHETICS

L - 2

In Section 5A-10 of the DEIR, it states “the proposed bridge replacement design includes reuse of the trusses found on the existing bridge as project design feature on the proposed new bridge.” Based on the U.S. Secretary of the Interior’s Standards for Rehabilitation, there are 10 “standards” that apply to all historic structures when alterations are proposed. I believe the following two standards must be considered as part of the DEIR. Placing the a piece of the historic bridge (the trusses) upon the new structure does not constitute historic preservation, rather it mimics the authenticity of historic structure and should not be relied upon as a mitigating aesthetic factor based on the U.S. Secretary of the Interior’s standards as follows:

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

L - 3

Aesthetics Mitigation Measure A-2 is an unacceptable mitigation and based on County policy, is not consistent with the U.S. Secretary of the Interior’s standards for rehabilitation of historic structures

NATIONAL REGISTRY ELIGIBILITY

In a report by Tom Origer and Associates in 2001, the bridge was evaluated for National Register eligibility. According to the HPSR the bridge at the time of the evaluation, did not meet any of the criteria for eligibility. It has been a matter of discussion at both Landmark Commission meetings and Board of Supervisor meetings that although the California Register of Historic Resources was updated, the National Registry eligibility remains over 10 years old, and was not updated for the DEIR. The findings by Tom Origer and Associates was that the Watmaugh Road Bridge is now eligible for the State Register and “retains a high degree of integrity in all aspects” including “the location, setting and feeling of the bridge” and that it is “relatively unchanged, and the physical alterations are limited.”

Previous evaluations by both the County and Cal Trans had found the bridge ineligible for the State Registry, thus when there was compelling new information discovered by way of the updated state historic register eligibility, the County had an obligations to pursue an updated evaluation for the National Registry eligibility for the Watmaugh Road Bridge. This is also pertinent based on County policy outlined in the Landmarks Commission's by-laws to maintain and nominate historic sites to be included in the inventory with the California Register of Historical Resources and the National Registry.

L - 4 The DEIR is insufficient due to the lack of current credible studies in regard to the Watmaugh Road Bridge's eligibility for inclusion in the National Registry of Historic Places and how the generation of new information about this structure's eligibility will affect studies generated based on federal requirements surrounding Section 106 of the NHPA. A current evaluation is required to fully realize not only historic relevance, but funding opportunities as well.

PRESERVATION OF THE HISTORIC BRIDGE DISTRICT

The Sonoma County Landmarks Commission by-laws outline under Section 2-d that the commission will "establish Historic Districts which are defined areas of the County containing a number of structures of historic merit, and Thematic Districts which recognize a significant theme carried through different areas of the County." The Sonoma County Historic Thematic Bridge District of 12 historic bridges was established in 1998 by the Sonoma County Board of Supervisors as resolution # 98-0046. The resolution states "the establishment of a thematic district and zooming of HD will afford long term protection of these bridges and insure that modifications are not detrimental to the historic integrity."

The DEIR states that "the removal of the bridge would cause a substantial adverse change to the bridge" and that it would "no longer be a significant historical resource." The DEIR finds that the Cultural Impact No. 1 will remain a

L - 5 "significant and unavoidable" impact. The destruction of the Watmaugh Road Bridge will result in a dismantling of the thematic bridge district, ultimately sacrificing the historic merit of the county's most important districts.

L - 6 Additionally, under section 5B.8 Cumulative Impacts, the DEIR states "there are no additional proposals to remove other bridges within the HD bridge thematic district." New information based on a report from the Sonoma County Project Listings, Transit Projects dated September 28, 2012, it is unclear if additional bridges included in the district will be demolished. The project listing specifically lists the bridges and their status of replacement including the Geysers Road Bridge (replacement), Chalk Hill Bridge (replacement), Lambert Road Bridge (replacement) and the corresponding dollar amounts associated with the cost of each replacement. Why wasn't this information included in the DEIR?

L - 7

The facts listed in the report combined with the speculation of unknown plans, studies and EIR's for the other bridges in the historic district that have not yet been completed or submitted, demonstrates the invalidity of the statement that "there will be no cumulative impacts on the historic thematic bridge district." The Watmaugh Road Bridge must be considered as part of the Sonoma County Historic Thematic Bridge District, and considering new information documented above, additional information and studies must be analyzed to determine the cumulative impact. The demolition of these bridges one at a time will have an impact on the integrity of the entirety of the bridge district established to preserve Sonoma County historic bridges.

SPECULATION ON PLANS FOR PARALLEL BRIDGES

L - 8

Stated in Section 5B Cultural Resources of the DEIR, the report states the following: "Both Big Sulphur Creek Bridge and the Chalk Hill Bridge are planned have future projects that will construct new parallel bypass bridges located nearby where the existing historic structures will remain in-place (see Table 5C-2 in Section 5C)." This statement is in complete contradiction to the report dated September 28, 2012 listed above and requires not only further study, but transparent disclosure of intent as well.

L - 9

The building of parallel bridges alongside historic bridges as proposed in Sonoma County results in "demolition by neglect." County staff has stated in the case of parallel bridges, there is no funding planned for the maintenance of the historic bridges in the situation a parallel bridge is built. Additionally, the U.S. Secretary of the Interior standards, thus County policy, recommends the following criteria in this situation:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

Parallel bridges will not only change the original use of the structure as they are proposed to be closed to traffic and would not be maintained, but the addition of the new bridge would change the spatial relationship of the bridge to its cultural landscape. Additional consideration is that the Landmarks Commission found that the building of a parallel bridge in the case of the Watmaugh Road Bridge was an unacceptable alternative due the impact a new adjacent parallel bridge would have on the historic structure and its surrounding district. Further analysis is required and would most certainly quantify this point.

L - 10

I respectfully request the Sonoma County Board of Supervisors and County Staff address the concerns in this and other letters submitted by the public and respect the historic preservation policy the County has established as to maintain the level of historic integrity deserving of our residents. The community has been "saving" the historic Watmaugh Road Bridge since 1981, and I am not convinced

L - 10 this is a complete DEIR and believe further unbiased, transparent studies must be presented to determine whether all impacts have been considered under CEQA. The objectivity of the DEIR is imperative and it seems concerning that the County, with few exceptions, has prepared most of the reports and studies within this document.

This is an irreversible decision that must not be undertaken lightly. This will be your legacy.

Sincerely,

Nancy Simpson
130 Patten Street
Sonoma, CA 95476

cc:
Landmarks Commission
Citizens for the Preservation of Sonoma Historic Bridges

LETTER M

November 13, 2012

I am writing to you to make one last plea for the Watnaugh Bridge. What this actually comes down to is the importance this historic bridge plays in the history of Sonoma and the relevance to Sonoma today. As you know, Sonoma County is now second only to Tuscany in the world with regard to tourists to wine country. (see attachment) What sets us apart from all the rest of the wine areas is our importance to California history, our wonderful landscapes and our charming and authentic architecture, friendliness and glimpses into the past. These are things not addressed in the EIR.

M - 1 Tourists rave about the friendliness, the beauty and the obvious love we have for our heritage. As the last Warren Pony truss bridge in Sonoma, we have not only an opportunity to preserve that history but an obligation to save our few remaining views to the past, not only for us but for future generations.

“Bridges are a look into our past. They reveal what life was during a period in history, and help to complete the story of our nation’s history and development. By honoring bridges built before the early automobile era, we connect with a much slower pace of life, and outside of urban areas, bridges, nearly always give us pause and remembrance of a more gracious time” from How to Save a Bridge: a step by step guide. This bridge, if honored as such, will provide Sonoma with yet another historic monument to our significant California past.

Here are some points I hope you study over the next 2 weeks.

- Submitted reports from today by citizens, League for Historic Preservation letters and those from the Save the Bridge Committee

M - 2 • Page 2.2 says the proposed project would not add capacity to the existing roadway and would in no way create growth inducing effects. By changing the rural character of the bridge and by widening or adding another parallel bridge, this needs to have a study, not just a prediction. Cumulative impacts are not enumerated.

M - 3 • No safety studies with regard to widened bridge with higher truck load capacity or no study if a parallel bridge were built

M - 4 • 4.4 Initial study for noise determined no significant impact, but did not study impacts of increased truck loads with new bridge or parallel bridge capabilities

M - 5 • Potential for Historic Registry by the addition of information about James Watmough, note spelling given me by Bob Parmelee. Tom Origer reports are out of date so Criterion 2 should be analyzed again by them after their new research. Criterion 4 is also inadequate with no current studies. Bibliography most current research 1998, most earlier but not before 1867. James Watmough was here in 1846 and those maps need to be studied.

M - 6 • Inadequate current studies on traffic, environment, significant, non mitigating impacts

M - 7 • 7.6 no actual studies were made with regard to the negative impact of the parallel bridge and biological resources. No reference to resident endangered Wood Duck population who return every year. Actual investigation needed.

M - 8 • CESA studies were not completed, old data supplied. Need to study recently spotted California River Otter under bridge, seldom seen this far up the Sonoma Creek. DFG stated need for studies on a number of species not done in letter of Sept 4. No hydraulic analysis of bridge abutments and piers done. Letter also referred to necessary CEQA documents and need for “complete assessment”

M - 10 • Letter to Rich Stabler of August 21, 2012 from Department of Transportation states that all archaeological record research must be less than 5 years old.

M - 11 • Landmark Commission Staff consulted 8.2. Yolanda Solano, staff, not the Sonoma Representative, Nancy Simpson

M - 12 • Total impossible reality of doing a parallel bridge in this historic district and fragile environment need for Story poles to show what exactly would be the outcome of the second bridge. No studies were done with regard to this option as it was deemed to be significant to consider but if the bridge does make Historic Register, then these studies

- M - 12 for environment and impacts are imperative to be done now, not later. Another inadequacy of this EIR. Area of Effect is not enlarged when considered impacts of parallel in the maps dated 1998
- M - 13
- Traffic reports done with regard to the parallel bridge did not take into consideration that the new bridge would allow truck traffic not currently allowed on the 22 foot bridge. Actual studies need to be done, not just estimated consequences. This is totally inadequate at this point. Letter dated September 5, 2012 from Chris Seppler on air and noise quality. In addition, traffic studies with regard to safety resulting from a parallel bridge referenced in the letter from Mr. Kiser need to be addressed as they are not included in the EIR
- M - 14
- No "As Built" Construction maps were not included available from District 4 Caltrans offices, Richard Higgins and no 3-D simulations and overlays have been done to show actual projections, only simple and inaccurate schematics have been included. These are listed under the Visual Assessment Procedure but were not done and while the letter stated high levels of adverse significance, it was based on projection, not actual studies.
- M - 15
- **Appendix J** with regard to bridge preservation states focusing only on replacing deficient bridges while ignoring preservation needs will be inefficient and cost-prohibitive in the long term. The reports and studies needed for evaluating this bridge need to be done. The EIR only contains estimates and ignores the independent reports supplied by the Save the Bridge Committee.
- M - 16
- Bibliographies included are out of date. Historical studies are dated 1999 and before with regard to correspondence. I have included just some of the information I found about James Watmough that could change the eligibility for Registry Status. The consulting firm needs to do current research.
- M - 17
- Native American research included mentions Miwok tribes but did not consult Santa Rosa Junior College who has extensive information about the activity of these peoples in the Watmaugh HD, a glaring inaccuracy. There is also no reference to local Patwin tribes who were part of the Wintum group who lived in Sonoma Valley. No research is needed here as the Watmaugh bridge corridor was a major passage way crossing the valley and there is probably much to be learned from these two tribes in Sonoma Valley
- M - 18
- Bouverie Audubon Preserve in Sonoma also has an extensive library of Native American information and they were also not contacted.
- M - 19
- Most destructive statement of the DEIR in my estimation is the one saying that although this is the only Warren Pony Truss Bridge in Sonoma County, there are other truss bridges in California that remain today SO DEMOLITION OF THIS BRIDGE IS NOT SIGNIFICANT. Visitors and residents of Sonoma should NOT have to travel to other parts of California to view one of our few historic remainders of our past

M - 20 Please review the DEIR keeping in mind the goal of proponents of saving the 1926 Warren Truss Bridge who are former Planning Department staffs, former Planning Commissioners, owners of successful complex construction projects, Jim, the League for Historic Preservation, the Save the Watmaugh Coalition, the City Council of Sonoma and many, many Valley residents, have read AND UNDERSTOOD independent engineering studies whose findings are that the bridge can be restored and saved. One such study was done by the firm that analyzed San Francisco's Coit Tower. Had all these studies came to the conclusion that the bridge must be replaced, these intelligent people would not still be trying to save the original bridge. It is also worthy of note that the last estimates are at a substantially lesser cost than replacement but that is another subject.

M - 21 In 2005, after the 100 year flood, a huge metal culvert type drum was discovered to be lodged against the piers of the Bridge. Supervisor Brown, the head of the Engineering Department in Sonoma County and CalTrans inspected the bridge and it was certified to be safe for all but huge truck travel. At that time, there should have been demand for repairs and maintenance to the bridge. The issue of scour (loss of the bedrock stream level foundation over 82 years)should have been addressed then when it would have taken the placement of 3 huge boulders per pier to secure the piers? Why was the information about James H. Watmough (note

actual spelling) not found to apply for National Registry of Historic Bridge status for the bridge that would have given it Federal money for repairs....a mandate of the Sonoma County Boards of Supervisors in 1981 and again in 1998 not discovered then when it would have been the important information to establish eligibility for National Registry.

M - 23 But most importantly, now is the time to support the urgent and extensive discussions with neighbors and the public who value the historic significance of this bridge and who had valuable and verifiable reports. I urge you to advocate, support and promote the findings of the Sonoma County Landmark Commission by reading their whole list of concerns and demands for current and accurate studies.

M - 24 Some of the processes that have been done to expedite this demolition have resulted in inadequate and inaccurate information, but ethically and as a representative of the constituents on Sonoma Valley, our Supervisor and the whole Board, if truly committed to saving and preserving our fragile and irreplaceable history and the Board could and should have fight hard for the chance for preservation of the Watmaugh Bridge by demanding studies for rehab and retrofit to complete this EIR.

M - 25 A new stark, sterile and repulsive bridge will quickly solve the safety issues but it will be the indelible scar on the historic environment of Sonoma, you will not vote for the certification of the EIR as it stands today. Otherwise your only way to see a historic Warren truss bridge will be by visiting the two that are in Sonoma Train Town. Luckily they understand the importance of preserving our heritage.

Sincerely,

Patricia B. Daffurn

Details of my findings from the DEIR

M - 26 We were told the County could not get Federal money in part due to the 'Sufficiency Number of 4 out a 100" just given to the bridge. Just like many other manipulated statistics, this number was drawn up by a State employee who consults with the local Engineering department. How interesting that the bridge was scored a 0 because it is not a 40 foot wide bridge when the rural Watmaugh road is not a 40 foot road and there are NO PLANS to widen any other part of the road. The bridge was judged by current standards, not historic bridge standards. The reports say it is possible to raise the bridge to somewhere around 80 with rehabilitation but not studies have been done to document this. It must be noted that when the people of Healdsburg were trying to save their Memorial Bridge, they were able to significantly correct the poor Sufficiency number of their bridge by persistence and the help of their Supervisor and with persuaded co-operation of CalTrans.

M - 27 At present there are no pedestrian or bike lanes on the road. Yet, nothing has been said about the proposed studies given the County which included having auxiliary access along the side of the

bridge for bikes and bodies that would have alleviated those concerns and no studies were done
M - 27 to investigate this, too.

**[http://www.rootsweb.ancestry.com/~ca
gha/pioneers/pioneer-w.htm](http://www.rootsweb.ancestry.com/~ca
gha/pioneers/pioneer-w.htm)**

California Genealogy and History Archives

Pioneer Register of California
(From the History of California, Vol. II.-V.)
Pioneer Register and Index 1542—1848

A B C D E F G H I J K L M N O P Q R S T U V W XYZ

Waccodzy, or Wacoocky (Basil), 1835, doubtful name of mr of the Sitka '35-6. iii. 384; iv. 106. Waddell (Archibald), 1847, Co. E, N.Y. Vol. (v. 499). Wade, 1847, at Sutter's fort '47-8, prob. one of the Mormons. W. (Edward W.), 1847, Co. C, Morm. Bat. (v. 469); at Ogden, Utah, '82. W. (Isaac), 1847, Co. F, 3d U.S. artill. (v. 518); d. before '64. W. (Moses), 1847, Co. C, Morm. Bat. (v. 469). W. (Wm), 1844, deserter from the U.S. Warren. Wadleigh (Joseph), 1848, maker of pans at Sutter's fort '48-9; went east with a fortune '49. Grimshaw. Wadsworth (James C. L.), 1847, came from N.Y. on the Whiton; became sutler's clerk of N.Y. Vol. v. 503; alcalde at Stockton '49; a resident of S.F. in later years to '85, being a well-known mining man. He gave me his testimony on matters connected with the Vigilance Committee. W. (Samuel), 1847, nat. of N.Y. and settler at Sta Clara; d. at Pleasanton '82 at the age of 62. Waggoner (P. W.), 1846, Cal. Bat., Co. B, artill. (v. 358); enlisting at Sta Cruz Oct. Wagner (Thomas), 1848, nat. of Va, who died at Snelling '77. Waine, 1846, lieut on the Levant. Wainwright (John), 1826, lieut on H. B. M. S. Blossom '26-7. iii. 121. W. (J. M.), 1847, acting mr of the U.S. Columbus; perhaps J. W. Wakefield (Benj.), 1847, act. boatswain on the Preble.

Walcott (Ephraim), 1844, Amer. deserter from a vessel who worked at S. F. for Fink, going into business for himself as a blacksmith in '47. iv. 453, 683; also at Sutter's fort '46-7. Wald (Wm), 1840, arrested at Los Ang. iv. 14. Waldo (Geo.), 1846, officer of the Cal. Bat. (v. 361). W. (Giles), 1848, passp. from Hon. Waldron, 1846, at Sutter's fort from S.F. June. W. (J. W. and R. R.), 1841, brothers and officers on the U.S. Vincennes. Walker, 1843, mate of the Admittance discharged at S. Diego; in '45 mr of the John and Elizabeth; perhaps two men. W. (Edwin), 1847, Co. D, Morm. Bat. (v. 469); re,nl. W. (Henry D.), 1846, Co. C, 1st U.S. dragoons (v. 336).

'55, said to have touched at S. Diego in '32; died in China '67; a nat. of Md age 59. Also called James W., and accredited to '44. iv. 453. W. (Richard), 1846, one of the party captured with [p.377]Alcalde Bartlett by Sanchez; in '82 a judge in Mono Co. Watmough (James H.), 1846, purser on the U.S. Portsmouth, who was com. of the Sta Clara garrison in Aug. and made a successful campaign against the Ind. on the Stanislaus. v. 102, 239-40, 294, 378, 567, 661. He was owner of a S.F. lot. v. 685; and in '47 bought land in Sonoma Co. from Vallejo, being in '53 an unsuccessful cl. for part of the Petaluma rancho. In later years he was a paymaster in the U.S.N., and in '77 chief of the dept of provisions and clothing. W. (Pendleton G.), 1846, mid. on the Portsmouth, who served in the S. Jos, garrison under Lieut Pinckney.

Historic Landmark 52: Rosser Ranch
Historic Landmark Information Number: 52
Historic Name: Rosser Ranch
Year Designated: 1980
Building / Structure Name: Rosser Ranch
Year Built: 1896
Architectural Style: Italianate
Past Uses: Residence
APN: 128-391-018
Address: 405 Watmough Road
Sonoma, CA

James Horatio Watmough letterbook : and papers, [1844-1855]

Letterbook (volume) written from both ends. Contains copies (in his handwriting and mostly signed with initials) of letters as purser on U.S. naval vessels, Portsmouth, Perry and Constitution. Letters from the Portsmouth reflect service on the Pacific Coast, 1845-1847. The... taken from Online Archive of California

the papers on topics of early history, respecting some phases of which, involving the trappers' explorations, he is recognized as one of the best authorities. He was selected to write the earliest annals for the centennial Los Ang. Hist.; and he has furnished for my use a brief Biog. Sketch, and a more extended book of Reminiscences, which I have often had occasion to cite. He still lives at Los Ang. in '85, age 78. About '37 he married Anita, daughter of Wm A. Gale, who died in '59, leaving a son. W. (Richard), 1836, one of the Los Ang. vigilantes. W. (Wm H.), 1846, capt. U.S. top. engineers, who came from N. Mex. with Kearny, and was wounded at S. Pascual. v. 336, 343-7. In '47 he came to Mont. and S.F., where he obtained a lot; and then engaged in trade with Sherman and Bestor at Coloma in '48, having previously made a survey of Sacramento City. He was killed in '49 by the Pit River Ind.

Warre (John), 1843, Sutter writes that he is not at N. Helv., but prob. at Sonoma. Warren (James), 1847, Co. G, N.Y. Vol. (v. 499). Warren (Wm), 1828 (?), negro known as 'Uncle Billy,' who died at S. Jos, '75; said in newspaper sketches to have come in '28. iii. 178. W. (Wm R.), 1836, nat. of Mass. who had lived at Hon. some 10 years or more, being known as 'Major.' iv. 118. He signed the memorial to Com. Kennedy at Mont. in Oct., unless Wm M. may have been another man. iv. 141; his name appears on Larkin's books in '37-42; and he was for some years in charge of Spear's store at Mont. In '40-1 he made a trip to Hon. and back. iv. 100, 567; and his daughter Mary, a quarter-breed Hawaiian, coming to Cal. about that time, married W. D. M. 'Howard,' q.v. Warren went back to Hon. and apparently died before '48. Warrington, 1846 (?), connected with the legislature of '55. W. (John), 1847, Co. D, N.Y. Vol. (v. 499); at S. Jos, '50; d. in Mendocino before '82. W. (John H.), 1848, porter in U.S. naval store at Mont. '48-9.

Wasden (Stephen J.), 1844, Amer. who got a pass. Washburn (Benjamin), 1844 (?), nat. of N.Y. who had lived in Ill. and Iowa, signed the call to foreigners at S. Jos, in March '45, and prob. came overland in '43 or '44. iv. 453, 599. In April occurred the death of his wife, Elizabeth Woodred, at S. Jos; and in Nov. W. was ill at Perry's farm near N. Helv. In April '46 he was at S. Jos; and in July is named as one of the prisoners carried south by Castro. v. 136. I have no later record, but W. is thought by Given to have died at S. Jos. W. (J.), 1845, at Sutter's fort; also at S. Jos. Hall; perhaps an error. iv. 578, 587. W. (Lysander E.), 1847, Co. C, N.Y. Vol. (v. 499); at N. Helv. and Sonoma '47, taking part in a dramatic performance at Sonoma; capt. of Cal. volunteers in the war of '61-5; at S.F. '71-82. Washington (Geo.), 1844, sailor on the Monmouth.

Watawha, or Wetowah, 1845, Delaware Ind. of Fr. mont's party; died in the service. iv. 583. Waterfall (Christian), 1847, Co. F, 3d U.S. artill. (v. 518). Waterman, 1841, mr of the Braganza. iv. 563; perhaps same as the following. W. (Robert H.), 1848, nat. of N.Y., and for many years a seacaptain; founder of Fairfield, Solano Co., where he still lived in '79. His wife was Cordelia Sterling. Waters (C.), 1848, from Hon.; clerk for Ross, Benton, & Co. at S.F. W. (James), 1844, nat. of N.Y. and Rocky Mt trapper, who settled in S. Bern. Co., where he lived in '76. Watkins (Adolphus), 1846, came from Hon. on the Elizabeth; owner of a S.F. lot '47. W. (B. F.), 1847, from N.Y.; a fruit-grower at Sta Clara '76. W. (Francis D.), 1847, owner of a S. F. lot; d. at Mission S. Jos, '48, age 33. W. (James T.), 1832 (?), com. of steamers from about

CALIFORNIA PIONEER
REGISTER AND INDEX
1542 - 1848

Including
Inhabitants of California, 1769 - 1800
and
List of Pioneers

Extracted from
THE HISTORY OF CALIFORNIA
By HUBERT HOWE BANCROFT

Baltimore
REGIONAL PUBLISHING CO.
1964

James Horatio Watmough pioneer as early as 1848

USN Purser on the USS there is a poor picture of him in Navy

Has a listing in Bancroft's Pioneer Registry. Had a farm on the west side of Sonoma valley and the road to his farm was known as Watmough Rd. and the bridge was called the same...Watmaugh Road Bridge. Hopke Farm was adjacent to the creek

Rancho Petaluma was a 66,622-acre (269.61 km²) Mexican land grant in present day Sonoma County, California given in 1834 by Governor José Figueroa to Mariano Guadalupe Vallejo.^[1] Rancho Petaluma stretched from Petaluma River on the west over the hills and down to Sonoma Creek on the east, including all land that lay between these two waterways from the edge of San Francisco Bay to approximately the present site of Glen Ellen. The rancho included present-day Petaluma and Lakeville.^{[2][3]}

text - University Library

libsysdigi.library.illinois.edu/oca/.../expeditionsoffoh02fr_djvu.txt

... The *Bear Flag Revolt* and the Court-Martial EDITED BY MARY LEE SPENCE AND "From the Bear Flag Affair," wrote Royce, "we can date the beginning of the in the Herald of Religious Liberty and denied the deliverance of a mes- sage, Two months later purser *James H. Watmough* was put in command of the ...

rom **Wilcox *History of the Mexican War* (1892)**

"Roster of Navy Officers, Pacific Squadron 1846

SLOOP PORTSMOUTH.

[20 Guns. Sailed from Norfolk January 25, 1845.]

Com. John B. Montgomery.

Lt. John S. Missroon.

Lt. Richard Forrest.

Lt. Woodhull S. Schenck.

Lt. Washington A. Bartlett.

Surg. Wm. Maxwell Wood.

Asst Surg. Charles H. Oakley.

Purser James H. Watmough.

Marine Officer, 2d Lt. Henry B. Watson.

Mid. Hunter Davidson.

Mid. Edward C. Grafton.

Mid. Stauwix Ganzevoort.

Mid. Joseph Purrish.

Mid. James Ilcrron.

Mid. Daniel C. Hugunin.
Boatswain Robert, Whittaker.
Gunner Andrew A. Randall.
Carpenter George Wisner.
Sailmaker David Bruce."

Collection Title:

Collection Number:

Get Items:

James Horatio Watmough letterbook : and papers, [1844-1855]

BANC MSS Z-Z 125

~~No~~ No online items

 Offline. Contact UC Berkeley::Bancroft Library

Collection Overview

Title:

James Horatio Watmough letterbook: and papers, [1844-1855]

Creator/Contributor:

Watmough, James Horatio, 1822-, creator

Abstract:

Letterbook (volume) written from both ends. Contains copies (in his handwriting and mostly signed with initials) of letters as purser on U.S. naval vessels, Portsmouth, Perry and Constitution. Letters from the Portsmouth reflect service on the Pacific Coast, 1845-1847. The loose papers include copies of letters and returns for the Perry, 1849-1851.

Date:

1844 (issued)

Subject:

United States. -- Navy.

History

Alcalde Bartlett by Sanchez; in '82 a judge in Mono Co. Watmough (James H.), 1846, purser on the U.S. *Portsmouth*, who was com. of the Sta Clara garrison in Aug. and made a successful campaign against the Ind. on the Stanislaus. v. 102, 239-40, 294, 378, 567, 661. He was owner of a S.F. lot. v. 685; and in '47 bought land in Sonoma Co. from Vallejo, being in '53 an unsuccessful cl. for part of the Petaluma rancho. In later years he was a paymaster in the U.S.N., and in '77 chief of the dept of provisions and clothing. W. (Pendleton G.), 1846, mid. on the *Portsmouth*, who served in the S. José garrison under Lieut Pinckney.

Watson (Andrew), 1834, Engl. sailor named in several Mont. records, age 34; at S. José '36; on Larkin's books '39-41, and said by Farnham to have been arrested in '40. iii. 412; iv. 17. W. (Edward), 1828, Engl. carpenter who joined the comp. extranjera at Mont. in '32, and in '33 was baptized as José Eduardo María. iii. 178, 221. His name appears in various records from '34, and in '36 he is named in the Mont. padron as 31 years old, with a wife María Guadalupe Castillo, age 16; in '37 bought land of John Rainsford; in '40 was arrested but not exiled. iv. 17, 23; in '41 naturalized, being a trader and memb. of the ayunt. After the discov. of gold he went to the mines, and died at Dry Creek, near the Cosumnes in '48. W. (Francis), son of James, b. at Mont. about '30; educated at Hon. from '40. iii. 180; iv. 103. In the mines '48; married a daughter of Santiago Estrada; and in '75 still lived in Mont. Co. with 8 children. I have a brief *Narrative* from him. W. (Henry), 1846, Co. G, Cal. Bat. (v. 358), enlisting at S. José Nov. W. (Henry B.), 1846, lieut of marines on the U.S. *Portsmouth*, in com. of S.F. garrison; also with Stockton in the southern campaign of '46-7. v. 239-40, 295, 392, 436, 659.

Watson (James or David), 1824(?), Engl. sailor who left a whaler at Sta B. or S.F. about this time and settled as a trader at Mont. His original name seems to have been David, but was prob. called Santiago at baptism; also called Felipe Santiago, and in one record James Peter. ii. 495, 526. The 1st


Montgomery appeared on the plaza, lowered the Bear Flag and raised the American ensign.

United States Military Occupation (1846 – 1850)

August 4, 1846

U.S. Navy Lieutenant Joseph W. Revere enlists the 52 men of John Grigsby's company into the United States Army of Occupation.

August 6, 1846

Mariano Vallejo returns to Sonoma on parole from  Sutter's Fort.

August 9, 1846

537 Mormons volunteer to serve as soldiers in the conquest of California. Mormon church petitions President Polk not to appoint Boggs governor.

August 12, 1846

News of the United States declaration of war with Mexico arrives in Sonoma with the arrival of the U.S. warship Warren in Monterey.

mid-September 1846

Navy Lieutenant John S. Misroon appeared in Sonoma and issued Navy handguns to the Indians employed by Mariano Vallejo.

Fall 1846

Navy Lieutenants Joseph W. Revere and John S. Misroon, Navy Purser James H. Watmough and Consul Larkin begin "to look to Vallejo for land grants."

October 1846

The first of the overland immigrants start arriving in Sonoma having been directed there by Lansford W. Hastings and James M. Hudspeth who stationed themselves on the Oregon Trail at Fort Bridger (in what is now Wyoming) in July to bring emigrants as expeditiously as possible into Mexican California.

This file is part of the California Genealogy & History Archives
<http://www.rootsweb.ancestry.com/~cagha/index.htm>

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Source: History of Sonoma County....San Francisco, 1880.
THE MEXICAN LAND GRANTS OF SONOMA COUNTY

3. Official Documents Relating to Early San Francisco 1835-1857

Contributing Institution: UC Berkeley::Bancroft Library

Description: Includes official correspondence of various alcaldes and justices of the peace; proclamations and documents relating to criminal and court proceedings, land grants, etc.

2 search terms found:

...Sherrebeck and J. G. T. Dunleavy. 176 **Watmough**, James Horatio, 1822- Letter to...

...Tiburcio, 1793- Folders 54, 101 **Watmough**, James Horatio, 1822- Folder 176 Webb,...

4. Weber Family Papers

Contributing Institution: UC Berkeley::Bancroft Library

Description: Includes correspondence, diaries, letterpress copy books, legal documents, accounts, property records, and personal ephemera concerning the life of Charles Maria Weber and his family in California. Weber was a German immigrant and founder of Stockton, California. He came to California in 1841, and his family papers include material relating to his experience in the Mexican War and land acquisition in the Stockton area. The bulk of material spans the mid-19th and early 20th centuries, with some earlier family material. Correspondents include: Washington A. Bartlett, Hull McAllister, John C. Fremont, Thomas O. Larkin, Joseph Bartine Hull, and John Augustus Sutter.

1 search terms found:

...John B. Montgomery letter to James H. **Watmough**. August 13, 1846 2. Charles Maria...

6. Land Case Files circa 1852-1892

Contributing Institution: UC Berkeley::Bancroft Library

Description: In 1851 the U.S. Congress passed "An Act to Ascertain and Settle Private Land Claims in the State of California" which required all holders of Spanish and Mexican land grants to present their title for confirmation before the Board of ... Read More

2 search terms found:

...part [Sonoma County] James H. **Watmough** Grantee: Mariano G. Vallejo Associated...

...ND Watkins, Luis D. 336 ND , 352 ND **Watmough**, James H. 256 ND Watson, James 68...

1. James Horatio Watmough letterbook : and papers, [1844-1855]

Contributing Institution: UC Berkeley::Bancroft Library

Description: Letterbook (volume) written from both ends. Contains copies (in his handwriting and mostly signed with initials) of letters as purser on U.S. naval vessels, Portsmouth, Perry and Constitution. Letters from the Portsmouth reflect service on the Pacific Coast, 1845-1847. The loose papers include copies of letters and returns for the Perry, 1849-1851.

1. Land Case Files circa 1852-1892

Contributing Institution: UC Berkeley::Bancroft Library

Description: In 1851 the U.S. Congress passed "An Act to Ascertain and Settle Private Land Claims in the State of California" which required all holders of Spanish and Mexican land grants to present their title for confirmation before the Board of California Land Commissioners. Land from titles not confirmed became part of the public domain. This Act placed the burden of proof of title on landholders and initiated a lengthy process of litigation that resulted in most Mexican Californians, or Californios, losing their titles. While 604 of the 813 claims brought before the Board were confirmed, most decisions were appealed to U.S. District Court and some on to U.S. Circuit Court and the Supreme Court. The confirmation process required lawyers, translators, and surveyors, and took an average of 17 years to resolve. The records of the District Court cases, the Land Case Files, were deposited on permanent loan in The Bancroft Library by the U.S. District Court in 1961. There are 857 total cases: Northern District Cases 1-458 and Southern District Cases 1-399 (see "Additional Notes on the Collection" for a note on case number discrepancies). Materials include transcripts, witness depositions, materials presented as evidence, and other legal documents. Most maps were transferred to the Map Collection of The Bancroft Library for separate cataloging (see: Maps of private land grant cases of California).

2 search terms found:

...part [Sonoma County] James H. **Watmough** Grantee: Mariano G. Vallejo Associated...

...ND Watkins, Luis D. 336 ND , 352 ND **Watmough**, James H. 256 ND Watson, James 68...

We find on page 23 of the Appendix the following: "Jacob P. Leese, claimant for Huichaca, two square leagues, in Sonoma county, granted October 26, 1841, by Manuel Jimeno, and July 6, 1844, by Manuel Micheltorena, to J. P. Leese; claim filed April 6, 1852, confirmed by the Commission April 18, 1853, by the District Court, April 22, 1856, and appeal dismissed December 24, 1856; containing 18,704,04 acres. Patented."

Josefa Carrillo Fitch, et el., claimants for Sotoyome, eight square leagues, in Sonoma and Mendocino counties (situated in Mendocino and Russian River townships), granted September 28, 1841, by Manuel Micheltorena to

LETTER N

CITIZENS FOR THE PRESERVATION OF SONOMA HISTORIC BRIDGES
P.O. BOX 298
SONOMA, CA 95476

November 13, 2012

Supervisor Valerie Brown
Supervisor Efren Carrillo
Supervisor Mike McGuire
Supervisor David Rabbit
Supervisor Shirlee Zane

Sonoma County Board of Supervisors
575 Administration Dr. Rm 100 A
Santa Rosa, CA 95403

Re: Watmaugh Road Bridge Replacement Project

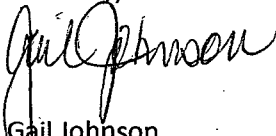
Dear Supervisors,

I very much want to bring to your attention the following information on the availability of funding for rehabilitation of Sonoma County Bridges.

One of the very significant issues raise about the rehabilitation of the Watmaugh Road Bridge has been the issue of funding. It has been stated numerous times by Mr. Tom O'Kane, with our Sonoma County Department of Transportation, that funding is not available for retrofit or rehabilitation. Attached please find the letter dated August 20, 2012 titled "Moving Ahead for Progress in the 21st Century Act" that Federal funds are available to rehabilitate or replace deficient bridges in California. This is in addition to Proposition 1B that allows for the necessary funding from the State of California.

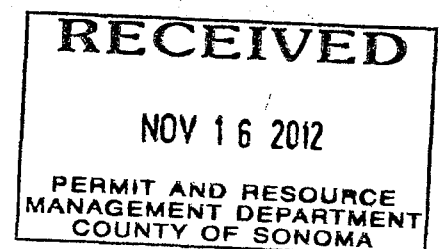
Also enclosed is a copy of an article in the Sonoma Index Tribune that speaks of the work being done by the County of Sonoma Department of Transportation on our roads and bridges and the money that has been allocated. Mr. O'Kane speaks of the historic brick bridge on O'Donnell Lane in Glen Ellen. This is a century old, single lane bridge which is going to be restored to saving its historic beauty with the funding from the Federal program.. The effort to restore this bridge is applaudable and this same effort should be applied to the Watmaugh Road Bridge that the County took the time to declare Historic Landmark #103.

Sincerely,



Gail Johnson
Citizens for the Preservation of Sonoma County Bridges

Cc: Rich Stabler Sonoma County PRMD





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DEPARTMENT OF TRANSPORTATION**DIVISION OF LOCAL ASSISTANCE**

P.O. BOX 942873, MS-1

SACRAMENTO, CA 94273-0001

PHONE (916) 653-1776

FAX (916) 654-2409

TTY 711

www.dots.ca.gov

August 20, 2012

To All Cities and Counties in California

Dear Directors:

Under the new federal "Moving Ahead for Progress in the 21st Century Act" (MAP-21), federal funds are available to rehabilitate or replace deficient bridges in California. The purpose of this letter is to request that your agency review your inventory of public highway bridges that potentially need replacement, rehabilitation, or preventive maintenance. Your agency should take action to address any public safety issues and to extend the life of your agency's bridge inventory.

Caltrans has posted on its Structures Maintenance and Investigations (SM&I) web site the inventory of all local public highway bridges. Bridges eligible for major reconstruction or replacement have a Sufficiency Rating (SR) less than or equal to 80 and are flagged Structurally Deficient (SD) or Functionally Obsolete (FO) by federal inspection coding standards. These bridges have deficiencies that should be addressed by each bridge owner. The bridge list may be found on this link:

<http://www.dot.ca.gov/hq/structur/strmaint/localbrlist.pdf>

Please review Chapter 6 of the Local Assistance Program Guidelines, for application forms and requirements. Bridges that are off the federal aid system are eligible for 100% federal reimbursement.

Applications for federal funds should be submitted to your District Local Assistance Engineer (DLAE), no later than September 30th, and January 31st of each year to ensure timely inclusion into the Local Assistance Bridge Program and the Federal Transportation Improvement Program (FTIP). See Office Bulletin 10-01 for the Bridge Program-FTIP procedures.

Caltrans also requests your agency to develop a bridge preventive maintenance program to keep bridges that are in good condition from becoming deficient. Guidelines/requirements for requesting federal funds to develop local agency bridge preventive maintenance programs are in the Local Assistance HBP web site:

<http://www.dot.ca.gov/hq/LocalPrograms/hbrr99hbrr99a.htm>

"Caltrans improves mobility across California"

All Cities and Counties in California
August 20, 2012
Page 2

If you have any questions, please contact your District Local Assistance Engineer.

Sincerely,

A handwritten signature in black ink, appearing to read 'Denix D. Anbiah', with a long, sweeping horizontal stroke extending to the right.

DENIX D. ANBIAH
Chief
Division of Local Assistance

FORECAST

FRI. SAT. SUN. MON.



Sunny Sunny Sunny Sunny

HI 65°/LO 43° HI 65°/LO 43° HI 65°/LO 43° HI 65°/LO 43°

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The Sonoma Index-Tribune
sonomanews.com

Memorial Saturday for 'Lumpy' Williams

By David Bolling
INDEX-TRIBUNE
EDITOR AND PUBLISHER

A memorial service and celebration for David "Lumpy" Williams will be held on Saturday, Nov. 3, beginning at 1 p.m. at

See Lumpy, A8



6 8 9 4 6 6 2 1 1 3 5 1

more highs than lows, while building an impressive body of work on the practice fields and sidelines, Sonoma Valley High School football's varsity head coach Mick O'Meara and defensive coordinator Mike Mulas have made the 2012 season their final one.

In their swan-song-season, the O'Meara and Mulas coaching tandem, with a passion for football and developing players to achieve

Whether the Dragons tonight, this won't be the game, as they've already played for the postseason, become a quite familiarity under O'Meara's guidance. The 2012 season Sonoma's 18th postseason Coast Section appearance. Heading into tonight's Dragons of the O'Meara era have established a

Bridges get facelift, roads resurfaced

Road, bridge projects getting ready to start

By John Capone
INDEX-TRIBUNE STAFF WRITER

The sky may not be falling, but the roads are surely crumbling. After decades of neglect, lack of funding and poor planning, it's no secret that Sonoma County has been left with one of the poorest infrastructures in the Bay Area. Just this week, the county's Board of Supervisors approved a one-time general fund allocation of \$8 million to put a dent in some of the work that needs urgently to be done around the county, though even members of the board concede the amount will barely even do that.

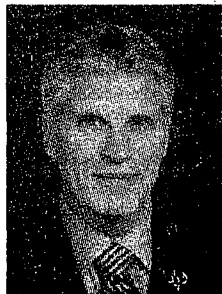
"This influx of money that the board approved will certainly help. But it doesn't solve the problem. It just helps us move along," said Tom O'Kane, deputy director of Transportation and Public Works for Sonoma County, who is tasked with keep-

ing those projects moving along. O'Kane also works to make the most of the funds he does have to use.

"One way we've cut some costs is with a machine that grinds up the asphalt and whatever the base is underneath," often little more than dirt, explained O'Kane of the effort to make use of whatever materials are already on hand. Once the asphalt eater does its work, the ground-up mixture is combined with cement or lime and an enzyme treatment to create a stable base for the new road. Then, if it's a low volume road, a chip seal is applied over the top; if it's a higher volume road, it may be paved. This treatment tends to hold up much better than just laying asphalt over broken roads, said O'Kane. "When people come in and say, 'ahh, well you need to pave this road.' Just paving it doesn't correct the problem."

Some of the significant bridge and road work across the Valley that will be starting in the coming

See Bridges, back page



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Kevin O'Neill (707) 935-1344

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Bridges

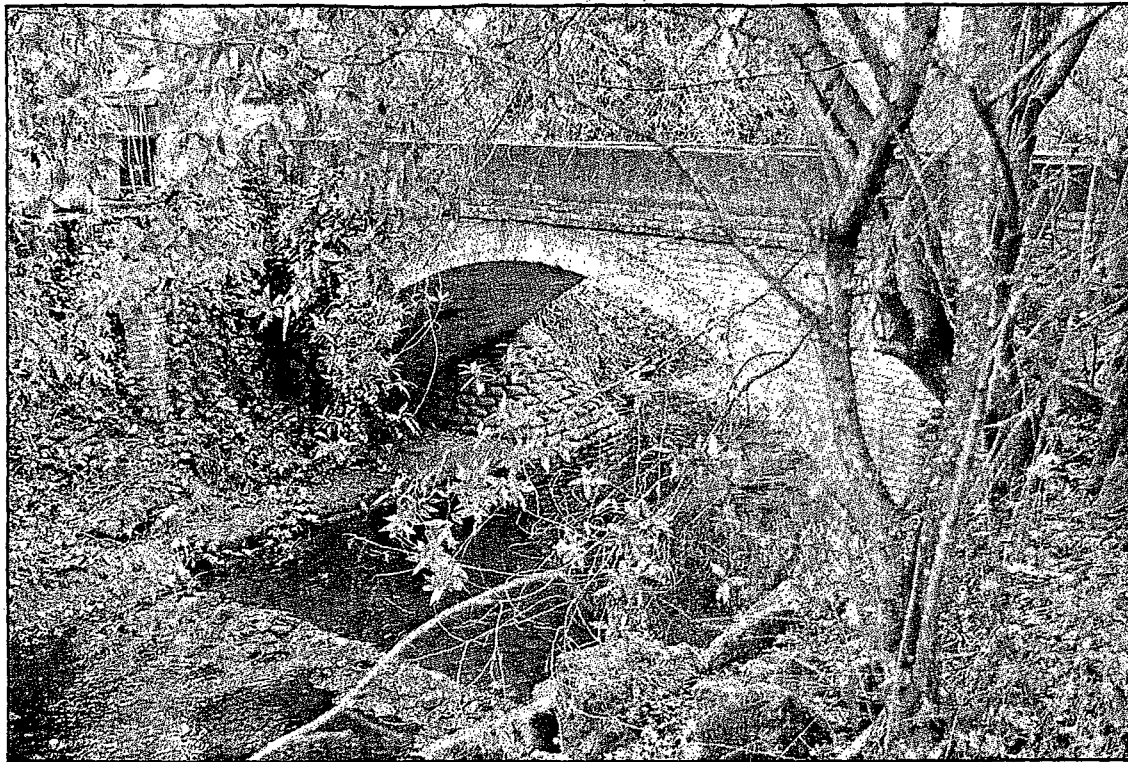
Continued from A1

months includes a restoration of the O'Donnell Lane Bridge behind the post office in Glen Ellen, repairs on the steel truss bridge road surface on Arnold Drive near the Sonoma Developmental Center, and the concrete bridge on Boyes Boulevard that spans Sonoma Creek. Also on the construction agenda is the long-planned roundabout at Arnold and Agua Caliente Road and paving or chip seal projects on Arnold Drive, Adobe Canyon Road and London Ranch Road.

"Bridge projects, on average, in California take 15 years from when we start talking about it to the time they're complete," O'Kane said with a pained laugh, and then referenced the three local projects, "We're maybe about eight or 10 years into it, but I'm hoping to compress the time a little bit."

The extensive restoration of the historic brick bridge on O'Donnell Lane in Glen Ellen is expected to enter the design phase in early 2013 and will be funded by a federal program through Caltrans. The century-old, single lane bridge is among the oldest in the county, though it has seen better days. The brick parapets, at some point, were covered in concrete after they'd become damaged, though the original brick can be seen in the arch. The concrete first needs to be stripped off.

"We'll probably have to do some structural work," said



Craig Philpott/Special to the Index-Tribune

THE O'DONNELL LANE BRIDGE is scheduled to be restored to its original brick look.

O'Kane, "but that will not change the character or design of the bridge." Then the parapets will be restored with a brick that matches the original. Once the work is completed on the bridge, drivers will be treated to a much prettier sight, and smoother ride, than they currently have.

The steel truss bridge on Arnold Drive and the concrete bridge that crosses Sonoma Creek in Glen Ellen are both scheduled for major maintenance projects this spring or early summer.

The asphalt paving on the decks of both bridges will be stripped off and the surfaces

repaired and treated with sealer. O'Kane conceded that while the work is not an emergency, both bridges are "pretty bumpy," and said, "Now is the time to do it before there's more deterioration of the surface."

Despite the protestations of some, work will begin this spring on the roundabout at

Arnold Drive and Agua Caliente Road, currently a four-way stop. "The design is complete, utilities are being relocated and we hope to go to bid in January," said O'Kane. The circle would be one of the first roundabouts in the county. O'Kane defended the roundabout as a way to improve traffic flow and touted the environmental benefits. "With a roundabout, at least traffic keeps moving. You're moving at a slower speed but at least you're still moving," he said. And, as opposed to a stoplight or stop signs, "It reduces emissions, because you don't have idling vehicles."

Also on Arnold Drive, about three quarters of a mile of road is scheduled to be repaved between Craig Avenue and Country Club Drive at the Sonoma Golf Club. The paving project, which will be federally funded through Caltrans, is currently out for bid, and O'Kane expects work to begin right after the first of the year.

On London Ranch Road leading to Jack London State Park, just over a mile of road will be redone with chip seal this spring.

And Adobe Canyon Road up to Hood Mountain and Sugarloaf Ridge State Park will also be resurfaced with chip seal in the spring. In response to feedback from cyclists, a smaller chip size will be used to facilitate a smoother ride.



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

November 15, 2012

Rich Stabler
Sonoma County Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Subject: Watmaugh Road Bridge Replacement Project
SCH#: 2012082037

Dear Rich Stabler:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on November 14, 2012, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

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NOV 19 2012

PERMIT AND RESOURCE
MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

Document Details Report
State Clearinghouse Data Base

SCH# 2012082037
Project Title Watmaugh Road Bridge Replacement Project
Lead Agency Sonoma County

Type EIR Draft EIR

Description Caltrans and Public Works proposes to replace the existing Landmarks status Warren pony truss bridge at Watmaugh Road over Sonoma Creek with a 32-ft wide concrete bridge. DTPW proposes to preserve the existing structural steel and include it as a detail on the new structure.

Lead Agency Contact

Name Rich Stabler
Agency Sonoma County Permit and Resource Management Department
Phone (707) 565-8352 **Fax**
email
Address 2550 Ventura Avenue
City Santa Rosa **State** CA **Zip** 95403

Project Location

County Sonoma
City
Region
Lat / Long 38° 15' 57" N / 122° 28' 1" W
Cross Streets Watmaugh Road
Parcel No.

Township	Range	Section	Base
			MDB&M

Proximity to:

Highways Hwy 121
Airports Sonoma Municipal
Railways
Waterways Sonoma Creek
Schools
Land Use Land Intensive Agriculture, Diverse Agriculture, Biotic Resource, F2 Floodplain, Scenic Resources, and Valley Oak Habitat

Project Issues Aesthetic/Visual; Archaeologic-Historic; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 3; Cal Fire; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 4; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 2; Native American Heritage Commission; State Lands Commission

Date Received 10/01/2012 **Start of Review** 10/01/2012 **End of Review** 11/14/2012

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN, Jr., Governor

DEPARTMENT OF TRANSPORTATION

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NOV 13 2012

November 13, 2012

STATE CLEARING HOUSE

SON012592
SON-12-39.4
SCH# 2012082037

Mr. Rich Stabler
Sonoma County
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403

Clear
11/14/12
P

Dear Mr. Stabler:

Watnaugh Road Bridge Replacement Project – Draft Environmental Impact Report

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process for the Watnaugh Road Bridge Replacement Project. The following comments are based on the Draft Environmental Impact Report (DEIR).

Traffic Impact Analysis

On page 3-1, 2nd paragraph, Traffic Technical Memorandum for the Proposed Bridge Replacement it states the Watnaugh Road traffic volumes were 531 vehicles for the AM peak hour and 329 vehicles for the PM peak hour. During the Watnaugh Road Bridge Replacement construction, the majority of those vehicles will be detoured through the Leveroni Road and State Route (SR) 121.

Because the existing SR-121 already operates at Level of Service (LOS) F during the peak hours as shown in Table 2 of Traffic Technical Memorandum (page 3), the diverted trips from the project would exacerbate the congestion at the intersections of State Route (SR) 12 /SR-121 and SR-121/SR-116. The proposed detour capacity will be restrained by the all-way stop controlled Arnold Drive/SR-116/SR-121 intersection, and the congestion queues at the intersection might be substantial.

Please provide us intersection LOS analyses and queue length analyses for the SR-12/SR-121 and Arnold Drive/SR-116/SR-121 intersections.

Transportation Management Plan (TMP)

If it is determined that traffic restrictions and detours are needed on or affecting State highways, a TMP or construction Traffic Impact Study may be required of the developer for approval by Caltrans prior to construction. TMPs must be prepared in accordance with Caltrans' *Manual on Uniform Traffic Control Devices*. Further information is available for download at the following web address:

Mr. Rich Stabler/County of Sonoma
November 13, 2012
Page 2

<http://www.dot.ca.gov/hq/traffops/signatech/mutedsupp/pdf/camutcd2012/Part6.pdf>. Please ensure that such plans are also prepared in accordance with the transportation management plan requirements of the corresponding jurisdictions.

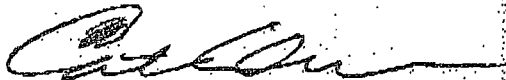
Encroachment Permit

Please be advised that any work or traffic control that encroaches onto the State Right of Way (ROW) requires an encroachment permit that is issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to the address below. Traffic-related mitigation measures should be incorporated into the construction plans during the encroachment permit process. See the website link below for more information. <http://www.dot.ca.gov/hq/traffops/developserv/permits/>

David Salladay, District Office Chief
Office of Permits
Caltrans District 4
P.O. Box 23660
Oakland, CA 94623-0660

Please feel free to call or email Luis Melendez at (510) 286-5606 or luis_melendez@dot.ca.gov with any questions regarding this letter.

Sincerely,



ERIK ALM, AICP
District Branch Chief
Local Development – Intergovernmental Review

c: State Clearinghouse

BOS HEARING COMMENTS

Public testimony from Watmaugh Bridge item dated 10/16/2012

"Gail Johnson, Sonoma, I apologize first off for our lack of understanding procedures, there are quite a few people who would like to have talked. I think they thought we had November to do that but now my understanding is November is for written comments. There are quite a few people. I am not qualified on a lot of the EIR issues that are out there, Joanna (illegible) who is very qualified, has a severe issue with a family and could not be here and she has a lot of concerns about the EIR and things that are not addressed in it so hopefully she will get them

PA - 1 written up in time to get them to you. My only comment that I see offhand, I was just down the Oregon coast last week and into Mendocino and Humboldt and saw these gorgeous bridges that were saved and maintained and authoritative and kept and the history that I saw everywhere you went had historic landmarks and places to stop – I hate to see us lose that. We are still losing that by doing the new bridge and I am thinking that there is a way to do it ..never saw it encased in the way that is being discussed, I saw these gorgeous old bridges that were just as beautiful as when they were built and I would hope we could preserve that. And it's up to us it's

PA - 2 our opportunity to save this in Sonoma Co and as a Board that is your opportunity. One more bridge gone once we do this. On a personal basis as far as the new bridge if we do it the way it is being suggested I have a major concern over the safety it's not addressed in the EIR anywhere that I could find and it's the traffic and what will happen when we widen this road the road is only 22 feet wide it's used as even though a rural connector it's used as a thoroughfare people fly down the road it's posted at 35 and they are going 45 and the end passing when it gets to the bridge that slows them down when we put a bridge on here that another 20 feet wide actually 12 more feet people are even going to go faster and I worry about the safety of anybody...the safety of anyone coming down the road..the Niles, the Oncalas.. anyone coming out of their driveway it's almost impossible now to get out let alone have a wide bridge that people will fly over 50-60 miles an hour. I don't know how we adjust it, we have talked about it I don't think signs are going to stop it.

Patty Dippern (sp?), You have a 350 some page document and you want me to address it in three minutes...I am wondering since there is not one else Zane said try to stay within three minutes, if you need another minute I am happy to give that to you. You do have an opportunity to submit comments in writing till November 12 at 5:00 p.m.

I would like to start with a couple of questions one is last time we were here I asked if you had been to the bridge and I was wondering if you had gone to the site. Any of you? So I guess not. My second question is the \$99,000 that was supposed to go to the other firm...what happened to that money? If you could tell me that. Anyhow, what I would like to do... I was going to read a statement about how to save a bridge and I will just do the first step of each one...I'm not on TV am I?

Historic bridges are a look back into our past and reveal what life was during a period of history and help to complete the story of our national history. Historic bridges offer a deep connection to a community heritage, and Sonoma has a heritage like no other city in California as I am sure you are well aware. Metal truck bridges often have been the name of iron and steel mills imprinted on them and when the mills no longer exist there is a cyclical connection to this heritage which remains in the form of a historic bridge. By choosing to preserve historic bridges, you choose to ensure (illegal) under written text or photographs preserve bridges are living

PB - 1 history and are a direct physical connection to our past. You are under task to replace this bridge and it has not been proven in the EIR that the bridge cannot be rehabilitated. Not retrofitted, rehabilitated. There is no study in that regard. That is the number one problem with this issue. On page 221 you talk about loss of the bridge and the impact culturally as less than significant. I think that is not a sufficient answer. On 2.2 you refer to the Landmarks

PB - 2 Commission report but not one of their recommendations or suggestions is listed. And the major one was that a study be done about rehabilitating the bridge. On 2.3 you talked about

PB - 3 policies and what could happen environmentally but not one study has been done about what trees are there, how many are there and how many might be taken out. You talk about well once the new bridge is started that fish again will come out and by then what would they really accomplish when they find the different things that they talk about. On 3.1 you talk about load

PB - 4 limitations and how you measured the sufficiency of this bridge and you measured it in regard to today's bridges. You did not use historic bridge numbers so it got a four. There is no doubt in my mind, I have seen this bridge and there are problems, but does it need to be demolished and I call it demolished by neglect. In the 93 or 83 years there has been no, isn't that right Tom, no maintenance on this bridge. Only recently was there signage, there is nothing that says it is a California hysterical – historical – maybe historical monument. Only recently it came up that it is a narrow bridge, there is no caution for pedestrians, there is nothing about sharing the road, And Valerie when you were there in 2005 you had a very unique opportunity at that time to start doing some maintenance rather than deciding at that point that we would demolish this

PB - 5 bridge. For that I hear you are directly responsible. You have a letter here talking about scours. Scour is when the bedrock disappears. We had two engineering firms, not individuals who said that the scour could be easily handled by putting major boulders upstream which would be environmentally correct and which would protect the historic piers that you have not seen. In your 200 letter from Caltrans it says there are no reports of scour or related problems in our supplemental report so that came in the last ten years.

PB - 6 In 5.3 b it talks about a national register and said there was no significant person. I have twelve pages here talking about James Horatio Watmaugh how he was a person for the sheriff's enforcement that was in Monterey at the time and I understand what you are saying but he was there. He met with Vallejo, he met with Fremont, he was a part of the thing...he bought land from Vallejo. He acquired land grant and was very historically significant.

Zane interrupted.

I have twelve more pages....

I will submit it in writing. What I ask everybody is that you read this eir and you read it hoping to save the bridge.

APPENDIX B DRAFT BIOLOGICAL ASSESSMENT

Draft Biological Assessment, Watmaugh Road Bridge Over Sonoma Creek, March 23, 2000

Sonoma County Department of Transportation and Public Works

Draft Biological Assessment

Watmaugh Road Bridge Over Sonoma Creek

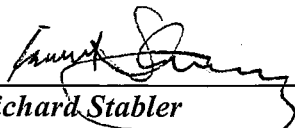
Agency: 04-SON-0-CR:

Project Number: STPLZ-5920 (036)

Project Location: Bridge No.20C-0017
Postmile 11:88 to 11:91

Project Description: Seismic Retrofit of an Existing Bridge

Prepared by:



Richard Stabler
Biologist/Environmental Specialist
(Sonoma County Permit & Resource Management Dept.)

March 23, 2000

Date

Summary of Findings and Conclusions

The Sonoma County Department of Transportation and Public Works proposes a seismic retrofit on the Watmaugh Road bridge over Sonoma Creek (20C-017). Based on the proposed work, as described below, federally listed and proposed species, as well as their designated and proposed critical habitats, are not likely to be adversely affected by this project.

The literature search and field surveys indicated that there are sensitive species that have been identified within the four USGS quads within 16.1 km (10 miles) of the project area. However, the project, as described, is not likely to adversely affect any federal or state listed rare, threatened, or endangered species, or other sensitive species, species of concern, or their habitats.

The project site is within the currently occupied range of federally and state listed threatened Central California Coast steelhead trout. It is also within the current range of the federally and state listed endangered California freshwater shrimp, however, critical habitat has not been designated for this species. Critical habitat for the Central California Coast steelhead, including this portion of Sonoma Creek, was proposed on February 5, 1999. The project is also in the range of the federally listed, Threatened, California red-legged frog. The critical habitat for the California red-legged frog has not been proposed. During surveys of the project area, there were no frogs or frog habitat found, and thus, they will not be affected by the proposed project.

On September 2, 1998 a field meeting was held at the project site with Levi Gurule and Bill O'Connell (Sonoma County Department of Transportation and Public Works), Joyce Ambrosius (US National Marine Fisheries Service), Pete Straub (Army COE), Bill Cox (California Department of Fish and Game), and Chris Seppeler, (Sonoma County Permit and Resource Management Department). On November 19, 1999, a meeting with was held at the project site with Bill Cox (CDFG), Cecilia Brown (USFWS), and Chris Seppeler, Paula Stamp, and Richard Stabler (PRMD). The proposed mitigation measures that are found within this assessment were developed as a result of the recommendations of the representatives of the regulatory agencies at the meeting and during subsequent discussions.

Of the plant species of concern, identified in the CNDDDB, CNPS, and USFWS databases, (See attached), none have been reported at this location. None were found during the surveys. This was expected because the project site contains no vernal pools, serpentine soils, or coastal prairie habitat. Other species of concern and their habitats identified in CNDDDB and USFWS databases for the project area and the surrounding four USGS quads were not found during the field surveys, and will not be affected by this project. Habitat, such as undisturbed forest, serpentine soils, vernal pools, and high cliffs suitable for these potentially occurring species do not exist within the project site. Based on conclusions of the studies and this assessment, it is recommended that FHWA request concurrence from NMFS and USFWS that the project, as described, is not likely to adversely affect federally listed, threatened, steelhead trout, their proposed critical habitat, (NMFS) and the federally listed, endangered, California freshwater shrimp (USFWS).

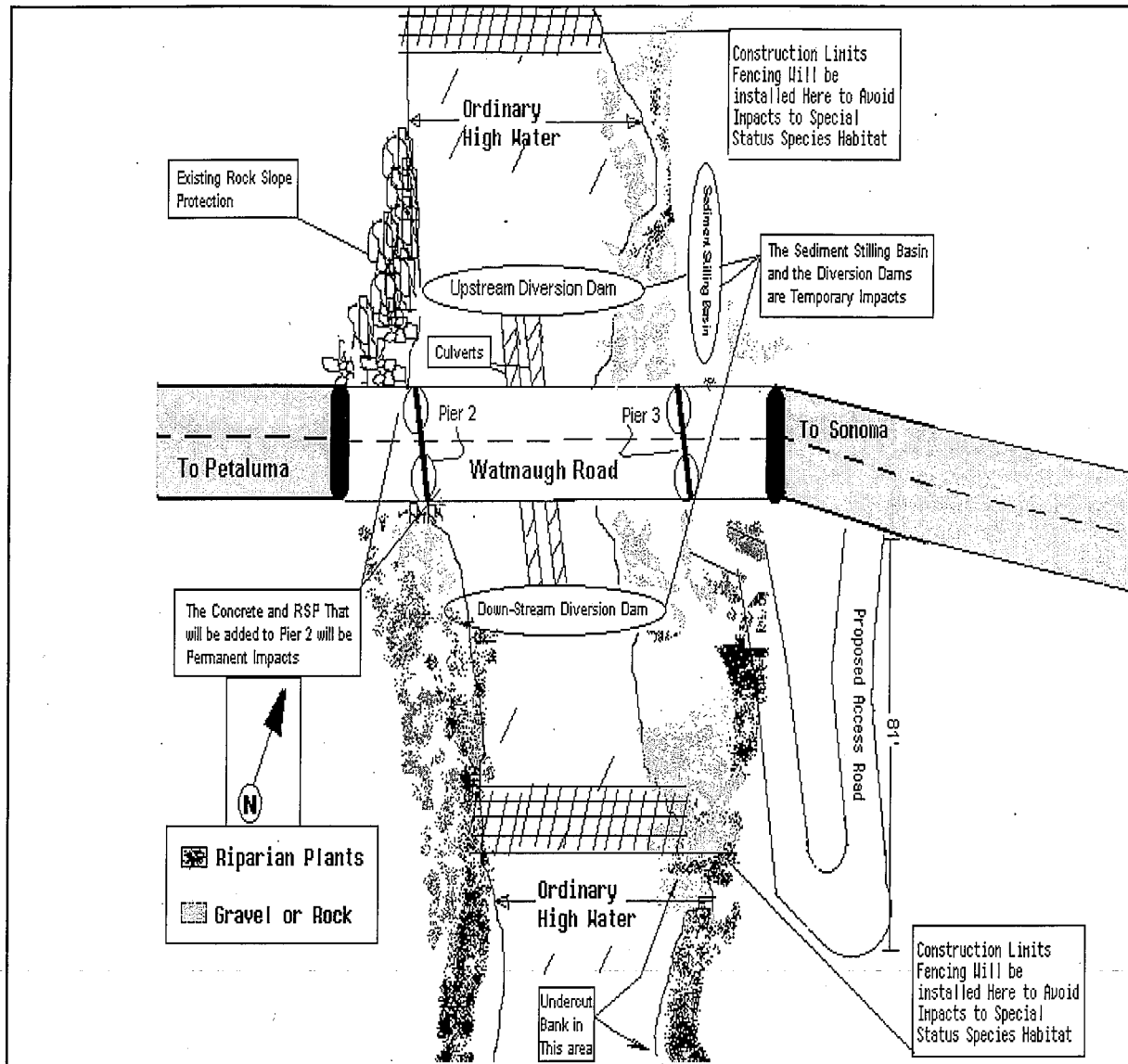
Fill in COE Jurisdiction

Below Table 1 gives the areas and volumes of fill in COE jurisdiction which will occur as a result of project construction. Note that the gravel fill is temporary in the sense that the creek will move the gravels downstream as soon as winter flows return. The permanent impacts are associated with the concrete added to pier 2 and the rock slope protection added to armor pier 2 that are included on table 1, and are also illustrated in the accompanying figure A.

Table 1. Fill in COE Jurisdiction

Type	Material	Dimensions (feet)	Surface Area (square feet)
Pier 2 footing (enlarge)	concrete	2(6 x 2.5 x 2)	30
Pier 2 column rehabilitation (trim and strengthen)	concrete	2(5 x 0.5 x 1)	5
Pier 2 rock slope protection To OHW (remove, replace and augment)	rock	36 x 12 x 1	432
Diversion dams (temporary)	gravel	2(30 x 3 x 3)	300
Backfill footing excavation (See Pier 2 footing excavation below)	soil/gravel	2(20 x 2 x 2)	80
Excavation for sediment stilling basin (temporary)	gravel	25 x 25 x 2.5	625
Pier 2 footing excavation (temporary)	soil/gravel	2(40 x 6 x 1)	480

Total Area of Fill in COE Jurisdiction: 0.004 ha (0.01 acres).



Watmaugh Road Over Sonoma Creek Bridge

COE Plan View

(Not to Scale)

Figure A

PRMD Environmental, 2000. R.A.S.

Introduction

California has a statewide program to retrofit bridges to comply with seismic safety standards. The Sonoma County Department of Transportation and Public Works (DTPW) is planning a project to seismically retrofit the bridge over Sonoma Creek at Watmaugh Road. Sonoma Creek flows directly into San Pablo Bay and originates in the northern portion of the Sonoma Valley. Watmaugh Road Bridge is a three-span steel truss bridge constructed in 1929, and is presently inadequate to withstand a large earthquake event. This retrofit project will strengthen the bridge allowing it to withstand greater seismic disturbances and prevent the bridge structure from failing during anticipated earthquakes. Following retrofit of this bridge some structural damage will be expected during large seismic events, however, the bridge is not predicted to collapse.

Existing Facility

The Watmaugh Road Bridge is located over Sonoma Creek near the town of Sonoma; it is approximately 14.5 km (9 miles) from the north end of the San Francisco Bay Estuary at San Pablo Bay, (fig.1). The current bridge, constructed in 1929, is 52 m (170 feet) long, and 7.3 m (24 feet) wide. The bridge consists of three spans, one center span that is a steel pony truss with a concrete deck, and two approaches composed of concrete tee girders.

Project Description

This retrofit will include enlarging pier 2 at the footing and the column, increasing both pier caps, strengthening part of the superstructure, which will include attaching new elements onto the truss, and adding decking to floor beam connections. Rock slope protection may be added around pier 2 to protect the footing from further erosion (figs. 2, 3, 4, 5, &6).

Construction Method

To construct the project with minimal effects to the creek and its habitat for fish and wildlife, meetings were held on site with Levi Gurule, Kevin Howze, Robert Hemberger and Bill O'Connell (Sonoma County Department of Transportation and Public Works), Cecilia Brown (US Fish and Wildlife Service), Joyce Ambrosius and Tom Daugherty (National Marine Fisheries Service), Pete Straub (COE), Bill Cox (California Department of Fish and Game), and Chris Seppeler, Richard Stabler and Paula Stamp (Sonoma County Permit and Resource Management Department). At these meetings (hereafter referred to as "Agency meetings"), the project and construction methods were discussed and recommendations made. The following describes the construction methods that would have the least impact on the creek while accomplishing the project objectives in a practical manner.

The majority of the work will be done under the bridge. Work will involve minor excavation, construction of falsework and concrete additions to the piers, and attaching on the truss. Currently, there is approximately 24 m (80 ft) of rock slope protection on the west bank, behind pier 2 and extending upstream from the bridge. Following construction of the upstream diversion, no

equipment will be operated in the flowing water. Light prep work for the placement of culverts in the active channel can be done with a backhoe bucket (not the entire backhoe) working in the flowing stream. If the culverts were laid in the gravel bar outside the summer low flow channel on the east bank, it would be filled in to allow the creek to return to its previous channel. In discussions with personnel from the California Department of Fish and Game and the North Coast Regional Water Quality Control Board, it was determined that water with a pH greater than 9.0 would need to be handled differently. If water that comes into contact with wet concrete, or other base that could effect water, and the pH is 9.0 or greater, the water must be pumped into a truck for upland disposal that is not within the bank to bank of any waterway.

Access to the creek channel will be from the southeast side of the bridge (fig. 3). This will require grading a road from the top of the bank, down to the channel bottom (figs 4&5 photos 1,7 &8). Some pruning of willows and other riparian species will be required for preparation of the access road, however, cutting will be kept to a minimum. There are some California buckeye trees, black walnuts, and other trees near the path of the proposed access road that will not likely resprout if their main trunk is cut. These trees will only be removed if absolutely necessary to construct the road. Willows and other plants that resprout will be cut at grade only if necessary, with no roots removed from the ground. Native trees will be replanted if the affected trees die. The access road will be kept as narrow as possible to minimize disturbance to the banks and the riparian community that it supports. The access road should not need to be wider than 4.6 m (15 ft), (the approximate width of a large backhoe or excavator). To ensure that soil from the creek bank is not pushed into the channel, fabric will be placed on the gravel bar at the toe of the bank before grading on the bank begins. Soil that is pushed into the creek channel for grading of the road will be removed down to the level of the fabric after the project construction is complete.

In order to isolate the work area during construction, the creek will be temporarily diverted into culverts. This will be done by digging a shallow trench, and placing the culverts into the trench. Upstream and downstream diversion dams will be constructed by pushing imported clean river run gravel into place such that it will not trap fish. To trap larger sediment particles, suspended in the water column, filter fabric will be placed on the face of the downstream diversion dam. Immediately following the completion of the diversion system, all fish and California freshwater shrimp trapped in the dewatered part of the stream will be collected by a qualified and permitted individual and moved to appropriate habitat outside of the project area. Temporary construction fencing will be erected upstream 15.2 m (50 ft) from bridge and downstream 7.6 m (25 ft), and will define the northern and southern project limits (see fig. 3). Minor grading around pier 2 will be done to create a level work surface. The total approximate length of the diversion will be 37 m (120 ft)(fig. 2).

A sediment stilling basin will be constructed on the northeast side of the creek, if needed (fig 3). The function of the sediment stilling basin is to remove fine sediment that could be discharged into the creek during the construction process that could adversely affect water quality. Water that accumulates in the footing from the project excavations will be pumped to the stilling basin. The sediment stilling basin will be created by excavating a large shallow depression far enough from the

flowing water to allow the sediment to filter out as the water seeps into the gravel bed of the river. Excavation for the sediment stilling basin may require pruning or removal of some plants. The trees, however, will be likely all be willows - these will regenerate rapidly if not cut too far below grade. There are a few acacias that may be affected in the area. These trees are not native riparian trees they are away from the creek and provide very little habitat value. If they were removed, local willows should subsequently recolonize the site. The material excavated to create the basin will be stockpiled for later filling in of the basin following project completion, by October 15.

The actual retrofit will consist of enlarging the pier footing at pier 2 by making a shallow excavation around it, building forms to temporarily hold the concrete until it solidifies, pouring the concrete into the forms, and finally removing the forms from the finished pier footing and column. The pier caps for both piers, will be formed in a similar way, but with false work built from below. Concrete will be pumped into location from the bridge deck. The balance of the retrofit work will consist of welding new elements to the truss-to-floor beam connections, and other areas, and thereby, increasing the strength of the superstructure.

Rock slope protection that exists at Pier 2 will be replaced after construction is completed and more will be placed, if necessary, to protect it from erosion. Following construction, the culverts will be removed and notches will be dug in the upstream and downstream diversion dams to allow the creek flow to return to its approximate previous channel. In order to prevent the material from the sediment stilling basin from entering the creek, during future high water flows, following construction, all of the sediment in the sediment stilling basin will be removed and disposed of outside the creek channel in a permitted manner by October 15th. Following sediment removal, the basin will be regraded with the stockpiled excavated gravel to preproject topography.

Following construction, the access down the bank, and other disturbed areas, will be regraded to match existing topography (figs. 4&5 photos 1, 2, 3, 5, & 8). Replanting with native species will be done if plants cut at grade do not resprout. Appropriate erosion control methods will be implemented on the bank graded for the access road (figs. 4&5 photos 1, 7, & 8). The soil pushed down to create the access road will be removed along with the fabric; the soil will be used to regrade the access road to approximate preexisting topography.

Study Methods

On September 2, 1998 a meeting was held at the project site with Levi Gurule and Bill O' Connell (Sonoma County Department of Transportation and Public Works), Joyce Ambrosius (US National Marine Fisheries Service), Pete Straub (COE), Bill Cox (California Department of Fish and Game), and Chris Seppeler (Sonoma County Permit and Resource Management Department). The agency staff met at the project area. The purpose of the meeting was to identify potential impacts and mitigations to ensure that the project would be constructed in a way that would be least damaging to the environment. The mitigation measures that are described below were developed as a result of the recommendations of the trustee agencies' representatives at the field meeting.

In addition, Richard Stabler, (Environmental Specialist/Biologist) (Also the Author) visited the Watmaugh Road Bridge on October 13, 1999. During this visit, the Site Biological Survey was created (see attachment Site Biological Survey), pictures of the bridge and surrounding area were taken, and construction equipment access was confirmed. The California Freshwater Shrimp Habitat Assessment was also performed by Mr. Stabler in late November of 1999 (see attached report).

On August 26, 1999, Greg Tatarian (bat expert) inspected the site and surroundings to determine the potential for impacts on sensitive species of bats and their habitat (see attachment Bat Habitat Assessment for Bridge Seismic Retrofits). In the fall of 1998, Dr. Philip T. Northen and Larry Serpa conducted a study of the Watmaugh Road Bridge site. Their study addressed the following animal species:

- ▶ California freshwater shrimp
- ▶ Northwestern pond turtle
- ▶ California red-legged frog
- ▶ Northern red-legged frog
- ▶ Foothill yellow-legged frog
- ▶ Coho salmon
- ▶ Steelhead trout

Larry Serpa, a well known expert in the field, was responsible for the initial California freshwater shrimp study that looked for presence/absence, and Dr. Philip T. Northen examined the site for the remainder of the animal species (see attached SSU Aquatic Wildlife Survey).

On November 19, 1999, a meeting was held at the project site with Bill Cox (CDFG), Cecilia Brown (USFWS) and Chris Seppeler, Paula Stamp and Richard Stabler (PRMD). The proposed mitigation measures, that regard the California freshwater shrimp in this report, were developed as a result of the recommendations of the representatives of the regulatory agencies at this meeting.

Literature Review

A literature search was conducted to determine the presence of any threatened or endangered species and sensitive biological habitats that could be affected by this project. The US Fish and Wildlife Service (USFWS) species lists for the Glen Ellen, Sonoma, Petaluma River, and Sears point and 7.5-minute quads were analyzed. A review of the California Natural Diversity Database for the area within five miles of the proposed project was also made for the Glen Ellen, Sonoma, Petaluma River, and Sears Point Quads. The CNPS Data Base was also consulted for the project area.

Environmental Setting

The bridge at Watmaugh Road, over Sonoma Creek, is located in a rural area just south of the City of Sonoma (Fig.1). Just northwest and northeast of the bridge, there are houses with associated nonnative landscaping that borders the creek, especially on the east side. On the west bank, there are arroyo willows, white alders, a few weedy species (mostly Himalayan blackberry and periwinkle), and rock slope protection that is relatively void of plants. The summer flow channel width at Watmaugh Road Bridge is approximately 2.4-3 m. (8-10 ft) and flows near pier 2. There is a narrow gravel bar under the bridge on the east side, between piers 2 and 3, that eventually turns into a sandy slope that extends to the top of the bank. The west side of the creek at this bridge is dominated by rock slope protection (RSP), and mostly nonnative weedy plant species. The RSP goes from just a few feet downstream from the bridge to about 80-90 ft upstream from the bridge.

Wetlands

The creek channel and surrounding area, where the project construction will occur, contains wetlands. Beyond the channel itself, there is one orphaned side channel pool, approximately 19 m (60 ft) downstream from the bridge that does support hydrophytic plants. The wetland feature is within the ordinary high water and does not require a wetland delineation to be performed. The construction on the Watmaugh Bridge will not have any affect on this area due to the special project conditions imposed for this project, which includes fencing that would protect this feature. (See special conditions section for California freshwater shrimp.)

Plant Community

The Watmaugh Road Bridge is located in the mixed willow riparian scrub community (Holland, 1989). Although this is considered an important natural community by the CNDDDB, it is not considered to be in decline. Most of the vegetation pruned for project construction is anticipated to regenerate within the next year. See discussion of impacts and mitigation below. For a relatively comprehensive reference regarding the plants within the project area, see the attached Biological Survey.

Wildlife Species

Sonoma Creek provides habitat for several fish species, including the federally listed steelhead trout and the federal species of special concern Pacific and river lampreys. Steelhead probably use the project site as a spawning and nursery area (Bill Cox DFG personal communication), and each lamprey species has historically used the creek as well. In addition, the project site contains chinook salmon that are not legally protected at the project site, warm water natives such as California roach, various suckers, and sculpin, as well as some introduced species of fishes.

The federally listed endangered California freshwater shrimp was found 30.5 m (100 ft) downstream from the bridge site (see attached SSU Aquatic Wildlife Survey). A habitat assessment was done

by the author, in close contact with Bill Cox of the Department of Fish and Game, to quantify the shrimp habitat that is present at the Watmaugh Bridge site (see the attached Habitat Assessment for The California Freshwater Shrimp (*Syncaris pacifica*) at Three Bridges on Sonoma Creek). In total 38 linear feet of shrimp habitat were recorded for the Watmaugh Road Bridge Project area.

A specialist on bats completed a habitat assessment of the bridge in August of 1999 (Tatarian and Northen 1999). This was done to determine the potential for effects on bats and their habitat due to construction at the project site. The results of the study indicate that bats do use the bridge site as a night roost only (see attached Bat Habitat Assessment).

Important Abiotic Resources in the Project Area

Floodplain Needs and Hazards

The water surface elevation for the 100-year flood at the Watmaugh Road Bridge is approximately 13 m (43 ft) M.S.L and the bridge is approximately 6.7 m (22 ft) from the bridge deck to the top of the approximate summer water height. The mean annual precipitation is 71 cm (28 in), most of which falls in the winter months (Federal Emergency Management Agency, Flood Insurance Study, Sonoma County California Unincorporated Areas, 1997; Federal Emergency Management Agency, Flood Insurance Rate Maps, Sonoma County California Unincorporated Areas, 1991).

The flood of record will not be significantly affected by the seismic retrofit of the Watmaugh Road Bridge. The project would displace a minimal amount of water in the floodplain relative to its area and will have a minimal impact on natural and beneficial floodplain functions or values.

Water Quality

The project will not affect water quality because project conditions will ensure that all work in the water is carefully controlled. For a complete listing of water quality protection measures refer to the other impacts and special conditions sections for the California freshwater shrimp and Central California Coast Steelhead, within document.

Important Biological Resources in the Project Area

A literature search was conducted to determine the presence of any threatened or endangered species, species of concern or sensitive biological habitats that could be affected by this project. The listed endangered, California freshwater shrimp, and the federally listed threatened Central California steelhead trout occurs in the vicinity of the Watmaugh Road Bridge. Studies contracted by the Department of Transportation and Public Works found freshwater shrimp 30 m (100 ft) down stream from the bridge, it also found that there may be steelhead habitat near the same area (see attached). Studies found that the bridge is used as a night roost for bats under the bridge deck near the abutment on the east side. Each of the special status species that may occur in the vicinity of Watmaugh Road Bridge site are treated individually in detail within the results section.

The following is a summary of the USFWS species list and the California Natural Diversity Database occurrences for the Sonoma, Glen Ellen, Sears Point, and the Petaluma River quads. The table describes the federal and state status for listed species with short comments about the habitat requirements, range, and CNDDDB occurrences. Species that are identified with an asterisk (*) are not expected to occur in the project area, either because of limiting habitat requirements or because the project is not in close proximity their range.

Listing Status and Occurrences-Glen Ellen, Petaluma River, Sonoma & Sears Point Quads			
Common Name	Scientific Name	Fed/State Status	Comments
Mammals			
Fringed myotis bat	<i>Myotis thysanodes</i>	SC/NS	Upper Sonoran life zones in open woods. Range along Pacific Coast
*Greater Western (California) mastiff-bat	<i>Eumops perotis californicus</i>	SC/SC	Alameda, San Benito and Mariposa counties south in arid/semi-arid lowlands.
Long-eared myotis bat	<i>Myotis evotis</i>	SC/NS	Mostly in woods in Upper Sonoran Transition and Canadian life zones. Pacific Coast Range and Sierra Nevada.
Long-legged myotis bat	<i>Myotis volans</i>	SC/NS	Open forest in Upper Sonoran and Transition life zones.
Pallid bat	<i>Antrozous pallidus</i>	SC/NS	Common bridge inhabitant. Also in shrub, grassland, and woodlands throughout California.
* Point Reyes jumping mouse	<i>Zapus trinotatus orarius</i>	SC/SC	Occurs in dense herbaceous growth in moist areas beneath or near coniferous forests.
*Point Reyes mountain beaver	<i>Aplodontia rufa phaea</i>	SC/SC	Burrows are located in deep soils in dense thickets, preferably near a stream or water source in Marin Co.
*Salt-Marsh Harvest Mouse	<i>Reithrodontomys raviventris</i>	FE/CE	Occurs in salt marsh habitat, requires pickleweed as principal resource.

Listing Status and Occurrences-Glen Ellen, Petaluma River, Sonoma & Sears Point Quads

<i>Common Name</i>	<i>Scientific Name</i>	<i>Fed/State Status</i>	<i>Comments</i>
*Suisun ornate shrew	<i>Sorex ornatus sinuosus</i>	SC/SC	Found most abundant in riparian habitat near Suisun Bay.
Townsend's Pacific western big-eared bat	<i>Corynorhinus (Plecotus) townsendii townsendii</i>	SC/SC	Oak woodland, pasture, grassy hillsides. Petaluma River, Marin. (PE-LS 1992)
Yuma myotis bat	<i>Myotis yumanensis</i>	SC/SC	Mostly open woods, sub-boreal zones throughout the state.
Birds			
*Bald eagle	<i>Haliaeetus leucocephalus</i>	FT/CE	Coastal areas, rivers, and large lakes, in open areas, away from urban areas.
*Bell's sage sparrow	<i>Amphispiza belli belli</i>	SC/SC	Occurs in relatively dense chaparral and desert scrub.
*Black Swift	<i>Cypseloides niger</i>	SC/SC	Requires canyons or marine cliffs for nesting sites.
*California Black Rail	<i>Laterallus jamaicensis coturniculus</i>	SC/CT	Dependent upon saline emergent wetland, especially fond of pickleweed.
*California brown pelican	<i>Pelecanus occidentalis californicus</i>	FE/CE	Requires undisturbed islands adjacent to marine fishing areas.
* California Clapper Rail	<i>Rallus longirostris obsoletus</i>	FE/CE	Requires emergent wetlands and tidal sloughs.
*Ferruginous hawk	<i>Buteo regalis</i>	SC/SC	Requires large, open tracts of grassland, sparse scrub, or desert habitat with elevated structures for nesting.
*Northern spotted owl	<i>Strix occidentalis caurina</i>	FT/NS	Requires complex old growth forests with a permanent water source.

Listing Status and Occurrences-Glen Ellen, Petaluma River, Sonoma & Sears Point Quads

<i>Common Name</i>	<i>Scientific Name</i>	<i>Fed/State Status</i>	<i>Comments</i>
*Saltmarsh common yellowthroat	<i>Geothlypis trichas sinuosa</i>	SC/SC	Low dense vegetation near salt and brackish water.
*San Pablo song sparrow	<i>Melospiza melodia samuelis</i>	SC/SC	Occurs in dense riparian thickets in saline emergent wetlands.
*Tricolored blackbird	<i>Agelaius tricolor</i>	SC/SC	Freshwater wetlands with emergent vegetation.
*Western burrowing owl	<i>Athene cunicularia hypugea</i>	SC/SC	Occurs in open grasslands and shrubby areas, with perches and burrows.
*Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	NF/SC	Occurs near and takes cover on sandy or gravelly beaches near saltwater.
*Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	NF/CE	Occurs in dense riparian ecosystems with slow moving water.
Reptiles			
*California horned lizard	<i>Phrynosoma coronatum frontale</i>	SC/SC	Occur in open country in sandy areas, washes flood plains.
Northwestern pond turtle	<i>Clemmys marmorata marmorata</i>	SC/SC	Require basking sites easily accessible to underwater retreats.
Amphibians			
*California red-legged frog	<i>Rana aurora draytonii</i>	FT/SC	Occurs near quiet, permanent pools of streams and ponds.
*California tiger salamander	<i>Ambystoma californiense</i>	FC/SC	Annual grasslands. Require ponded water.
Foothill yellow-legged frog	<i>Rana boylei</i>	SC/SC	Occur in and around rocky streams in several habitats.

Listing Status and Occurrences-Glen Ellen, Petaluma River, Sonoma & Sears Point Quads

<i>Common Name</i>	<i>Scientific Name</i>	<i>Fed/State Status</i>	<i>Comments</i>
*Northern red-legged frog	<i>Rana aurora aurora</i>	SC/SC	Bog habitat in redwood forests.
*Western spadefoot toad	<i>Scaphiopus hammondi</i>	SC/SC	Occur near grassland with shallow temporary pools.
Fishes			
Central California steelhead trout	<i>Onchorhynchus mykiss</i>	FT/NS	Coastal basins Russian River south to Soquel Creek (includes Sonoma Creek).
*Central Valley fall/late fall-run chinook salmon	<i>Onchorhynchus tshawyscha</i>	FC/NS	Sacramento and San Joaquin rivers and their tributaries.
* Central valley spring- run chinook salmon	<i>Onchorhynchus tshawyscha</i>	PT/ST	Sacramento River and tributaries.
*Winter-run chinook salmon	<i>Onchorhynchus tshawyscha</i>	FE/SE	Sacramento River and tributaries.
*Delta smelt	<i>Hypomesus transpacificus</i>	FT/CT	Occurs in the Sacramento San Joaquin Delta
*Green sturgeon	<i>Acipenser medirostris</i>	SC/SC	Habitat requirements are poorly understood. Requires relatively deep water.
*Southern Oregon/California coastal chinook salmon	<i>Onchorhynchus tshawyscha</i>	FT/SC	Coastal rivers and streams from Cape Blanco Oregon to Point Bonita, California.
*Coho salmon-Central California coast	<i>Onchorhynchus kisutch</i>	FT/NS	Coastal basins, Humboldt Co. to Santa Cruz Co.
*Longfin smelt	<i>Spirinchus thaleichthys</i>	FT/CT	Spawn in freshwater environments connected to the Sacramento San Joaquin Delta.

Listing Status and Occurrences-Glen Ellen, Petaluma River, Sonoma & Sears Point Quads

<i>Common Name</i>	<i>Scientific Name</i>	<i>Fed/State Status</i>	<i>Comments</i>
Pacific lamprey	<i>Lampetra tridentata</i>	SC/NS	Occurs on Sonoma Creek South of Boyes Springs.
River lamprey	<i>Lampetra ayresi</i>	SC/SC	There has been recorded spawning on Sonoma Creek.
*Russian river tulle perch	<i>Hysterocarpus traski pomo</i>	SC/SC	Occurs only on the Russian River and tributaries.
*Tidewater goby	<i>Eucyclogobius newberryi</i>	FE/SC	Lagoons and lower reaches of coastal streams.
*Sacramento splittail	<i>Pogonichthys macrolepidotus</i>	FT/SC	Includes Sacramento - San Joaquin Delta and Central Valley Rivers.
Invertebrates			
California freshwater shrimp	<i>Syncaris pacifica</i>	FE/CE	Deep well shaded pools. See discussion.
*Myrtle's silverspot butterfly	<i>Speyeria zerene myrtleae</i>	FE/NS	Coastal grasslands, backdune and scrub habitats.
*Monarch Butterfly	<i>Danaus plexippus</i> (wintering sites)	NF/NS	Roosting sites for this migratory species are in coastal woodlands.
*Sonoma arctic skipper	<i>Carterocephalus palaemon</i>	SC/NS	Coastal grasslands, bog, and backdune habitat.
*Ricksecker's water-scavenger beetle	<i>Hydrochara rickseckeri</i>	SC/NS	4 known occurrences in the Jepson Prairie Preserve.
*Tomaes Isopod	<i>Caecidotea tomalensis</i>	SC/NS	Inhabits localized fresh-water ponds or streams with still or near still water.
Plants			
* Alkali milk-vetch	<i>Astragalus tener</i> <i>var. tener</i>	SC/NS	Occurs in alkali flats and moist meadows, possibly extinct.

Listing Status and Occurrences-Glen Ellen, Petaluma River, Sonoma & Sears Point Quads

<i>Common Name</i>	<i>Scientific Name</i>	<i>Fed/State Status</i>	<i>Comments</i>
* Baker's larkspur	<i>Delphinium bakeri</i>	PE/CR	Possibly extinct, occurs in coastal scrub.
* Baker's navarretia	<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	CNPS	Vernal pools, variable with water level and duration
* Baker's manzanita	<i>Arctostaphylos bakeri</i> ssp. <i>bakeri</i>	SC/CR	Occurs on volcanic and ultra mafic soils.
* Baker's stickyseed	<i>Blennosperma bakeri</i>	FE/CE	Vernal pools in the Santa Rosa Plain and the Sonoma Valley.
* Dwarf downingia	<i>Downingia pusilla</i>	CNPS	Occurs in vernal pools and roadside ditches.
* Fragrant fritillary	<i>Fritillaria liliacea</i>	SC/NS	Heavy soils in open grassland near the coast.
*Jepson's linanthus	<i>Linanthus jepsonii</i>	CNPS	Occurs in seasonal wetlands.
*Marin knotweed	<i>Polygonum marinense</i>	SC/NS	Coastal and bay saltmarshes.
*Marin Western flax	<i>Hesperolinon congestum</i>	FT/CT	Serpentine grasslands.
*North Coast semaphore grass	<i>Pleuropogon hooverianus</i>	SC/CR	Marshy areas, around redwood groves, and vernal pools.
*Point Reyes checkerbloom	<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>	CNPS	Occurs in marshes near the coast.
*Petaluma popcorn flower	<i>Plagiobothrys mollis</i> var. <i>vestitus</i>	SC/NS	Presumed extinct. Occurs in wet sites in grassland.
*Legenere	<i>Legenere limosa</i>	SC/NS	Wet areas especially vernal pools.

Listing Status and Occurrences-Glen Ellen, Petaluma River, Sonoma & Sears Point Quads

<i>Common Name</i>	<i>Scientific Name</i>	<i>Fed/State Status</i>	<i>Comments</i>
*Showy Indian clover	<i>Trifolium amoenum</i>	FE/NS	Extremely uncommon. Occur in valley and foothill grasslands.
*Soft bird's beak	<i>Cordylanthus mollis</i>	FE/CR	Requires coastal salt marsh habitat.
*Sonoma ceanothus	<i>Ceanothus sonomensis</i>	FC/NS	Chaparral, sand, volcanic and serpentine soils.
*Sonoma spine flower	<i>Chorizanthe valida</i>	FE/CE	Sandy soils in coastal grassland. (LS 1907)
*Tiburon tarweed	<i>Hemizonia multicaulis</i> ssp. <i>vernalis</i>	SC/NS	Occurs in coastal scrub communities.

Special Status Plant Communities and Critical Habitats

Listing Status and Occurrences-Glen Ellen, Petaluma River, Sonoma & Sears Point Quads

<i>Community</i>	<i>Fed/State Status</i>	<i>Comments</i>
*Coastal Brackish Marsh	NF/NS	There is no brackish marsh habitat within the project study area.
*Northern Coastal Salt Marsh	NF/NS	There is no saltmarsh habitat within the study area.
*Northern Vernal Pool	NF/NS	There are no vernal pools within the study area.
*Winter-run chinook salmon critical habitat	Not listed on Sonoma Creek.	Winter- run chinook and there habitat are not listed for Sonoma Creek.
*Central Valley spring-run chinook salmon critical habitat.	Not listed on Sonoma Creek.	Central Valley spring-run chinook are not listed for Sonoma Creek but are listed for the Sacramento River and its tributaries.

Listing Status and Occurrences-Glen Ellen, Petaluma River, Sonoma & Sears Point Quads

<i>Community</i>	<i>Fed/State Status</i>	<i>Comments</i>
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*Central Valley fall/late fall-run chinook critical habitat.	Not listed on Sonoma Creek.	Central Valley Fall/ late-run chinook salmon are not listed on Sonoma Creek but is included on the Sacramento and San Joaquin rivers.
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Key:

*Indicates species not in the project area.

FE: Federally listed Endangered

FT: Federally listed Threatened

SC: Species of Concern

PT: Federally Proposed Threatened

PE: Federally Proposed Endangered

NF: No federal status

CE: California listed Endangered

NS: Not state listed in California

CT: California listed Threatened

CNDDDB: California Natural Diversity Database

LS 1992: Last seen 1992

CNPS: California Native Plant Society

Results

Species listed in the CNDDDB and the USFWS species list, with habitat requirements that are not found in the project site, are not considered further in this assessment. Coastal brackish marsh, northern coastal salt marsh, saline emergent wetland, estuarine, and vernal pool habitats are not found in the project vicinity. Species that have habitat requirements that are absent from the project site are listed below along with the habitat that they would require.

The mammalian species that are excluded from further discussion, due to their requirement for habitat not found at the project site, include the Point Reyes mountain beaver, the Point Reyes jumping mouse, the saltmarsh harvest mouse, the greater western mastiff bat, and the Suisun ornate shrew. Each the Point Reyes jumping mouse and the Point Reyes mountain beaver are known to occur in Marin County streams, in dense riparian thickets that are not found at the project location. The Suisun ornate shrew and the salt-marsh harvest mouse require saltwater influenced habitat that is not found at the project site. The greater western mastiff bat occurs in low-lying relatively arid areas that are also not found at the project location.

Of the bird species in the USFWS and CNDDDB species lists, the following were included, but are not likely to occur in the project area: the California brown pelican, the black swift, the western snowy plover, the California black rail, the California clapper rail, the San Pablo song sparrow, and the saltmarsh common yellow throat. Each of these species requires some level of marine influence that is not found at the project site and therefore, will not be considered further in this assessment. In addition, the western burrowing owl, Bell's sage sparrow, the ferruginous hawk, the tricolored blackbird, and the western yellow billed cuckoo each lack their habitat at the project site. The ferruginous hawk and the western burrowing owl require large open grasslands that do not exist at the project site, as a result, they are not considered further in this assessment. The western yellow billed cuckoo and the tricolored blackbird each require dense riparian cover that does not occur at the project site and are not expected to occur there, as a result, they are not considered further in this assessment. The project location is within the winter range of the bald eagle, *Haliaeetus leucocephalus*. However, since the project will occur in the summer months, there should be no effects on these birds and, in addition, the bald eagle has been recently delisted as a special status species. The northern spotted owl is also listed in the USFWS and CNDDDB species lists as occurring in the general vicinity of the project site. However, this species requires cool late succession coniferous forests which, are not found within the area of project site. For this reason, the spotted owl is not being considered further in this assessment.

Important breeding habitat for the following species is not available within the project impact area: northern red-legged frog, California tiger salamander, and the western spadefoot toad. Their breeding habitat would include ponded water or bog habitat. Given that the breeding habitat is absent at the project site for these organisms, they are not expected to occur there. Therefore, these species will not be considered further in the assessment. The project site at Watmaugh Road is within the range of the coast horned lizard. However, this species is much more likely to occur in dry arid washes toward the Central Valley, and it would be extremely unlikely to occur at the project

site (Dr. P.T. Northen, Sonoma State Biology Chair, personal communication).

Sonoma Creek is known to provide habitat for several species of fishes. However, the immediate project site at Watmaugh Road consists primarily of a shallow exposed riffle, with a small exposed pool and is not a high quality habitat for juvenile or resident salmonids or species that require a deeper more shaded habitat. In addition, the project site is in a freshwater creek without salt intrusion. In addition, it is not a tributary of the Russian, Sacramento, or San Joaquin Rivers, but eventually, flows directly into San Pablo Bay. The following fishes are not included further in this assessment because of the reasons listed above, or because of their non-listing status on Sonoma Creek due to these reasons: 1. Central Valley fall/ late run, winter-run, Southern Oregon coastal, and Central Valley spring-run chinook salmon, 2. Delta smelt, 3. longfin smelt, 4. green sturgeon, 5. Central California 6. Coast coho salmon, 7. tidewater goby, 8. Sacramento splittail, and 9. Russian River tulle perch.

Of the invertebrate species listed in the USFWS and CNDDDB species list, only the California freshwater shrimp is known to occur near the project site. The monarch butterfly, the Sonoma Arctic skipper, and Myrtle's silverspot butterfly each require some level or form of coastal influence, or bog-like habitat for primary or overwintering sites, that does not occur at the project site. Ricksecker's water beetle and the Tomales isopod each require a lentic environment, which is not found within the area of the proposed project. As a result, all invertebrate species, except the California freshwater shrimp, are not considered further in this report.

With the plant species of special interest in this area: the alkali milk-vetch, Baker's larkspur, Baker's naverretia, Baker's manzanita, Baker's stickyseed, dwarf downingia, fragrant fritillary, Jepson's linanthus, Marin knotweed, Marin western flax, North Coast semaphore grass, Point Reyes checkerbloom, Petaluma popcorn flower, legenere, showy Indian clover, soft bird's beak, Sonoma ceanothus, Sonoma spineflower, and Tiburon tarweed - each are missing there respective habitat at the project site. All previously mentioned plant species, have evolved in, and consequently require, special edaphic and hydrologic conditions or plant communities that do not exist at the project site. These include vernal pools, ultra maphic soils, heavy organic soils, sandy soils, marshes, and coastal scrub communities that do not exist at the project site. As a result, they will not be considered further in this report.

Expanded Discussion Regarding Special Status Organisms that may Occur in the Project Area

The following organisms have the potential to occur in the project area and have either state or federal listings, at some level. This section has not been designed to be an exhaustive study of any one species, but was created to illustrate the needs and potential impacts to special status species in the project area. This section also addresses the project conditions that will ensure that impacts are avoided or minimized to levels that are not likely to adversely affect the special status species.

Central California steelhead trout (<i>Oncorhynchus mykiss</i>)

Natural History

The Central California steelhead is federally listed as threatened but is not state listed on Sonoma Creek. The present distribution of West Coast steelhead is from beyond the US/Canada border to Malibu Creek in Southern California. The Central California Coast ESU is designated from the Russian River to Soquel Creek which includes Sonoma Creek. The critical habitat for this ESU was proposed February 5, 1999 and would include all waterways and substrates below longstanding, naturally impassable barriers that would also include the project location. Steelhead are anadromous rainbow trout that return to their freshwater spawning grounds from December to March - spent fish may return to the ocean to spawn again in subsequent years. Up to 30% survive to spawn a second or third time. Egg development is temperature dependent, but usually takes one month for hatching at 10°C. Steelhead fry emergence and rearing occur in shallow edge-water habitats. Later as they grow, juveniles move into the deeper water of riffles and pools. Juvenile steelhead remain in fresh water 1-3 years and then spend 2-3 years in the ocean before returning.

Known Occurrences in the Impact Area

The Central California Steelhead is federally listed as threatened, and is known to occur in the Sonoma Creek drainage system. The Watmaugh Road Bridge area could potentially be a spawning and nursery site for steelhead and migration corridor for this species as well, (Bill Cox CDFG personal communication).

Proposed Mitigation for Project Effects on Salmonid Habitat

The project will be constructed in the known range of the federally listed threatened steelhead trout. At an interagency meeting that was held to discuss the potential effects on anadromous salmonids, and the following conditions were agreed upon:

- Construction dates for work on the creek from the top of bank to top of bank are June 15th to October 15.
- Access for work under the bridge will be from the southeast quadrant. This will require grading a road down to the channel bottom, avoiding the trees on the bank as much as possible. To ensure that soil from the creek bank is not pushed into the channel, fabric will be placed on the gravel bar at the toe of the bank before grading begins for the access road.
- Only the minimum amount of vegetation will be pruned or removed that is necessary to construct the project. Willows and other plants that resprout must be cut at or just below grade to facilitate plant regrowth.

- The diversion dams will be constructed with imported clean river-run material, with a filter fabric placed on the face of the downstream diversion dam. Gravel placed in the creek for any reason will be the minimum necessary.
- The diversion dams will be constructed by pushing the imported gravel across and in a downstream direction in such a manner so as not to impound water and trap fish.
- On site gravel can be used to cover the portion of the culvert near the pier to allow equipment to cross the channel of work on pier 2.
- The culverts for the diversion will be sized in such a manner to not back up water upstream of the diversion and not significantly increase velocities over the existing creek velocities at the outlet of the diversion. The outlet of the diversion will be located to avoid the undercut portion of the bank on the downstream east side, where the channel curves at the clump of willows.
- Immediately after the complete installation of the water diversion system, all fishes left in the dewatered area will be trapped and moved to suitable habitat, outside of the work area by a qualified and permitted individual.
- A sediment stilling basin will be constructed upstream from the bridge if necessary to dewater the work area at pier 2. Excavation for the sediment stilling basin will require some pruning or removal of vegetation (see Riparian Vegetation Section for condition details). The excavated material will be stockpiled for later filling in of the basin following project completion.
- All excavated materials not used for backfill will be removed from the creek channel and disposed of in a permitted manner.
- There will not be any motorized equipment left overnight within the Sonoma Creek channel, top of bank to top of bank.
- No equipment, including concrete trucks, will be washed in the creek or in a place where wash water could drain into the creek.
- Water that comes into contact with wet concrete and has a pH greater than 9.0 must be pumped to a truck or by hose for upland disposal or treatment (not within the banks of any waterway).
- Following construction of the upstream diversion, no equipment will be operated in the flowing water. Light prep work for the placement of the culverts in the active channel can be done with a backhoe bucket (not the entire backhoe) working in the flowing stream.
- Equipment and vehicles operated in the project area will be checked daily to prevent leaks of fuels, lubricants or other fluids into the creek.

- Prior to project construction, environmentally sensitive exclusionary fencing will be installed at the project limits to protect areas designated as California freshwater shrimp habitat to be saved. No work will occur beyond the ESA boundaries.
- All stockpiling of construction materials , equipment, vehicles and supplies, including storage of chemicals refueling and maintenance, will occur outside of the creek channel (bank to bank), where spilled fuel could not drain into the creek. In order to minimize the potential for spills and fluids from equipment working within the creek channel , an Accidental Spill Prevention and Cleanup Plan shall be prepared. This plan will include requiring spill control absorbent material to be present on site and available at all times. Hazardous material spills will be cleaned up immediately.
- Following construction, all of the sediment from the stilling basin will be removed and disposed of in a permitted manner.
- Following construction, the sediment stilling basin will be filled with previously excavated material and regraded to match existing topography. The access road down the bank will be regraded to match pre-project topography, with erosion control measures applied to the slope. All other disturbed areas will be regraded to match existing topography. Appropriate erosion control measures will be used on all disturbed areas to minimize the potential for erosion, these may include hydro seeding, replanting with native species, erosion control blankets, or other methods based upon the conditions of the site. The fabric placed for the access road will be removed along with the soil.
- Following construction, the culverts will be removed from the creek channel and notches will be dug in the upstream and downstream diversions and the gravel left in place with the creek flowing through the channel where the culverts once were. If the culverts were laid in the gravel bar outside the summer low flow channel, on the east bank, it would be filled to allow the creek to return to the original channel. The diversion dams will be left in place and the clean river-run gravel will be subsequently dispersed during the return of winter high water.
- Following project construction, all equipment, construction materials, litter, and construction debris will be removed from the creek and taken to an appropriate storage or disposal site.

The project is not likely to adversely affect anadromous salmonids when the above conditions, that were agreed upon in the inter-agency field meeting, are included in the construction of this project.

Chinook salmon (<i>Oncorhynchus tshawytscha</i>)
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Natural History

The chinook salmon is not listed on Sonoma Creek. The chinook salmon is a large salmonid, weighing up to 10 kg (22lbs) and growing up to 102 cm (40 inches) long. Chinook enter rivers from the Pacific Ocean, they prefer rivers with deep, cold, fast moving water, with gravel substrates. During the freshwater portion of their life history, chinook do not feed. After eggs are deposited, it takes 3-4 months for them to hatch (CDFG, 1990).

Known Occurrences in the Impact Area

Chinook salmon are known to occur on Sonoma Creek but are thought to be Central Valley hatchery strays (Bill Cox, DFG Regional Fisheries Biologist Personal Communication.). During a site visit in November of 1999, at the Riverside Drive Bridge over Sonoma Creek the Author observed one adult female in the large pool that presently exists there. Presumably, it must have migrated past the Watmaugh Road Bridge site to enter the Riverside Bridge area.

Potential Effects of the Proposed Project on the chinook salmon

The effects to the chinook salmon will be minimal if the conditions that protect other salmonids, (see above) are implemented, therefore, the project is not likely to adversely affect this species.

Pacific lamprey (<i>Lampetra tridentata</i>)
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Natural History

The Pacific lamprey is a parasitic, anadromous, and semelparous species that is relatively common in Northern California streams; yet due to its diminishing overall abundance, it is a state species of special concern. Spawning takes place in riffles where the current is swift. Each sex works to construct a nest in gravel or sand substrates, where the water depth is less than 1 m (3.1 ft). When eggs are shed by the female, they are generally washed into the crevices of the downstream section of the nest, where hatching occurs approximately 20 days later. Ammocoetes burrow tail-first in the mud and occur as filter feeders for some time, until maturity.

Known Occurrences in the Impact Area

The Pacific lamprey is known to occur in the San Pablo Bay, as well as in Sonoma Creek up to Boyes Springs. The site has a small riffle, sand, and gravel, and could provide spawning and nursery sites for fishes (Bill Cox, DFG Regional Fisheries Biologist Personal Communication).

Potential Effects of the Proposed Project on the Pacific Lamprey

The effects to the Pacific lamprey will be minimal if the conditions that protect salmonids, (see above) are implemented, and therefore, the project is not likely to adversely affect this species.

River lamprey (<i>Lampetra ayresi</i>)
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Natural History

The river lamprey is a parasitic, anadromous, and semelparous species that is relatively small compared to other lamprey species. It is a federal and state species of special concern. River lamprey parasitize a variety of fishes, however, the most common are salmon and herring. The habitat requirements for this species are clean gravelly riffles, in permanent streams, for adult spawning, and sandy backwater areas for ammocoetes.

Known Occurrences in the Impact Area

The river lamprey has become relatively uncommon in California (CDFG, 1995). Sonoma Creek has been a known spawning area in the past, but has been reduced dramatically by urbanization (CDFG 1995)(Bill Cox, DFG Regional Fisheries Biologist Personal Communication).

Potential Effects of the Proposed Project on the River Lamprey

The effects to the river lamprey will be minimal if the conditions that protect salmonids, (see above) are implemented, and therefore, the project is not likely to adversely affect this species.

Foothill Yellow-legged Frog (<i>Rana boylei</i>)
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Natural History

The foothill yellow-legged frog is a federal species of concern but is not state listed. Adult frogs eat terrestrial and aquatic invertebrates. They are found in and around rocky stream habitat, and depending upon environmental conditions, breeding and egg laying generally occurs toward the end of spring flooding. Egg clusters are oviposited attached to rocks and gravel near the edges of moving streams; tadpoles emerge 2-3 months later.

Known Occurrences in the Impact Area

The yellow-legged frog's range does include Sonoma Creek, however, a habitat assessment, performed by Dr. Philip T. Northen of Sonoma State University, concluded that, while there is habitat at the Watmaugh Bridge site, it lies 50 ft down stream from the bridge, well beyond the area that will be protected by ESA fencing, (see fig 3 and construction methods). During Dr. Northen's visits to the field sites, there were no frogs found.

Potential Effects of the Proposed Project on the Foothill Yellow-Legged Frog

The conditions formulated for steelhead trout will also protect the habitat for yellow-legged frogs (see above). There were not frogs occupying the project site and due to the lack of habitat at the site, it is unlikely that new individuals will disperse into the site. Therefore, the project is not likely to adversely affect this species.

California Red-legged frog (<i>Rana aurora draytonii</i>) Baird and Girard 1852

Natural History

The California red-legged frog is federally listed as a threatened species and is a state species of concern in watersheds that drain into the San Francisco Bay, which includes Sonoma Creek. It inhabits quiet pools of streams, marshes, and ponds. Adults feed on several invertebrate species including snails, insects and crustaceans, while tadpoles are generally herbivorous. Individuals are highly aquatic, preferring pool depths of 1 m (3 ft) with extensive cover.

Known Occurrences in the Impact Area

A habitat assessment was conducted in the winter of 1998, by Dr. Phil Northen of Sonoma State University. He found no red-legged frogs at the site and also determined that the habitat value of the project site was of a low quality (see attached study).

Potential Effects of the Proposed Project on the California red-legged frog

Since there were no frogs sighted during the field studies, and the area is of a poor quality for frog habitat, there is little chance that new colonists will move into the area. This being the case, the project is not likely to adversely affect this species.

Northwestern pond turtle (<i>Clemmys marmorata marmorata</i>)

Natural History

The Northwestern pond turtle is federally listed as a species of concern, but has no state listing. These turtles are generally considered omnivorous, feeding on aquatic plant material, invertebrates, and even carrion. They build nests in the sand on slow moving streams, or away from streams in soil with relatively high humidity. Individual turtles generally live in ponds, lakes, slow moving streams, or permanent pools alongside streams. Pond turtles require basking sites such as partially submerged logs, rocks, or floating vegetation.

Known Occurrences in the Impact Area

The Northwestern pond turtle is known to occur in Sonoma Creek. However, the project site has poor quality turtle habitat, and there is but a slight chance that turtles would use this area for anything beyond dispersal (see attached habitat assessment). During site visits to Watmaugh Road Bridge, there was no sighting of turtles and it is not likely that new migrants will come to the site by the time work is initiated.

Potential Effects of the Proposed Project on Northwestern Pond Turtles

This species of turtle is very mobile and easily provoked into moving to new locations. When activity increases in the Watmaugh Road Bridge project site, if there are any turtles present, they will disperse to a different site. With this fact in mind and the fact that turtles are highly unlikely to occur in the project impact area, the project is not likely to adversely effect this species.

California freshwater shrimp (<i>Syncaris pacifica</i> Holmes 1895)
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Natural History

The California freshwater shrimp was federally listed as endangered on October 31, 1998 and California listed as endangered on October 2, 1980. It is a decapod crustacean in the family atyidae and is endemic to streams in Sonoma, Napa, and Marin Counties (Messer and Brumbaugh 1989). According to Eng (1981), adults are generally less than 50 mm (2 in) in postorbital length (from eye orbit to tip of tail). Based upon shrimp collected in October, Eng (1981) describes females ranging between 32-45 mm (1.3-1.7 inches) in length and males from 29-39 mm (1-1.5 in). The pigmentation of individual shrimp can differ dramatically between locations, but are usually unpigmented in a cryptic translucent hue. Undisturbed shrimp are virtually invisible and move slowly on submerged leaf and twig substrates and among fine exposed live tree roots, along undercut stream banks.

The complete life history of the shrimp has not yet been fully described. Reproduction appears to occur once a year. Based upon the reproductive physiology and behavior of marine shrimp, and other freshwater shrimp, the male probably transfers and fixes the sperm sac to the female shrimp after her last molt, before autumn. Eggs with post-larvae are shed during late May and early June, where it grows rapidly and attains sexual maturity by its second summer.

Following a functional feeding group classification system, (or guild), developed by Merritt and Cummins (1978), atyid shrimp can be described as collectors feeding upon fine particulate organic matter, often called detritus, (Anderson and Cummins 1979)(Goldman and Horne 1983). Shrimp observed on pool bottoms, submerged twigs, and vegetation appeared to feed on fine particulate matter (Eng 1981).

The shrimp has evolved to survive a range of water conditions that is characteristic of perennial coastal streams. There are no data available for defining the optimum temperature and stream flow regime for the shrimp or the limits that it can tolerate. The shrimp does appear to be able to tolerate warm water temperatures, greater than 23° C, (73 °F), and flow conditions that are known to be detrimental or lethal to native salmonids. The general habitat of this species is lowland coastal streams with a gradient of less than 1%, where they occur in and among submerged roots, and aquatic vegetation. Shrimp are generally found in stream reaches where banks are structurally diverse and undercut, with exposed fine root systems, woody debris, or overhanging vegetation (Eng 1981), (Serpa 1986 and 1991). Excellent habitat conditions for shrimp involve streams 30-90 cm (14-41 in) in depth, with live roots along undercut banks (greater than 15 cm /6.8 in) with overhanging vegetation (Serpa 1991). This habitat may provide protection from high velocities and sediment levels typically associated with high stream flows during the winter.

Habitat preferences apparently change during late spring and through the summer months.

Eng (1981), rarely found shrimp beneath undercut banks in summer; submerged leafy branches were the preferred summer habitat. The highest concentrations of shrimp were in reaches with adjacent vegetation comprised of stinging nettles (*Urtica sp.*) grasses, and mint (*Mentha sp.*). None were caught from cattails (*Typha sp.*), cottonwood (*Populus fremontii*), or California laurel (*Umbellularia californica*). Serpa noted that shrimp populations were proportionately correlated with the quality of summer habitat provided by trailing terrestrial vegetation. However, during summer low flows, shrimp have been found in apparently poor habitat such as isolated pools with minimal cover. In such streams, opaque waters may allow shrimp to escape predation and persist in open pools (Serpa 1991).

Known Occurrences in the Impact Area

The California freshwater shrimp is known to occur in Sonoma Creek and was identified 30.5 m (100 ft) downstream from Watmaugh Road Bridge (see attached study Northen and Serpa, 1998). A study was performed in Sonoma Creek in November of 1999 to determine the extent of shrimp habitat that exists in the Watmaugh Road Bridge area (see attached Habitat Assessment for the California Freshwater Shrimp (*Syncaris pacifica*) at Three Bridges on Sonoma Creek). The study

found that within 75 ft up and downstream from the bridge there is a total of 38 linear feet of shrimp habitat

Potential Effects of the Proposed Project on the California Freshwater Shrimp

The project will be constructed in the known range of the federally listed endangered California freshwater shrimp. The following conditions have been formulated as a result of a discussion that occurred at the before mentioned interagency meeting with USFWS, which was held on site. The purpose of the meeting was to discuss the potential effects on this species and further discussions following that meeting. Some of the conditions are identical to those that are proposed for salmonid fishes, and some are specific to the California freshwater shrimp. These conditions were designed to protect the shrimp as well as shrimp habitat.

- ▶ In-stream construction will occur only between June 15 and October 15.
- ▶ No equipment will be washed in the creek, or in a place where wash water could drain into the creek.
- ▶ Following installation of the diversion dams, and before the work area is dewatered, a permitted biologist will collect shrimp and transfer them to available habitat outside of the work area. Any person capturing or handling shrimp will be approved by USFWS.
- ▶ All stockpiling of construction materials, equipment, vehicles, and supplies, including storage of chemicals, refueling and maintenance, will occur outside the creek channel (bank to bank) where spilled materials could not enter the creek. In order to minimize the potential for Spills and leaks of fluid from equipment working within the river channel, an accidental spill prevention and cleanup plan will be prepared. The plan will include requiring spill control absorbent material to be present on site and available at all times. Hazardous material spills will be cleaned up immediately.
- ▶ Equipment and vehicles operated in the project area will be checked daily for leaking fluids or pre-indicators such as abraded hoses, cracked or otherwise damaged casings, etc.
- ▶ Prior to work, construction fencing will be used to limit construction activities to areas that do not contain high quality shrimp habitat. No work will be allowed beyond these boundaries.

If these conditions are followed, as described, the project would not be likely to adversely affect the California freshwater shrimp.

Pacific Western Townsend's big-eared bat *Corynorhinus (plecotus) townsendi townsendi*

Natural History

The Pacific Western big-eared bat is a state and federal species of concern. It is found in humid coastal regions of Northern and Central California. The species generally roosts in caves, mines, and buildings. It is very sensitive to disturbances and will only roost in the open, hanging from walls and ceilings.

Known Occurrences in the Impact area

Although not very much is known about the distribution of the Pacific Western big-eared bat, it is generally agreed that they seem to be on a decline. The closest known occurrence of this species was by Dr. Elizabeth Pierson in 1994, at Olompali State Park. A bat study that was contracted by the Department of Transportation and Public Works, to identify the potential for bat habitat, in August of 1999. While this study was not designed to identify bat species, some were noted. This particular species was not identified in the project area (see attached bat habitat assessment).

Potential Effects of the Proposed Project on the Pacific Western Big-Eared Bat

The bridge is currently being used by bats as a night roost. Because work would occur on the underside of the bridge that could disturb roosting bats, construction will be limited to daylight hours only. No roosting bats will be disturbed. There is only a small likelihood that the Pacific Western big-eared bat would occur in the project vicinity because there are no caves, tunnels, or buildings that bats could roost in. The work that will occur at Watmaugh Road Bridge would not be likely to adversely affect this species of bat.

Fringed myotis bat (*Myotis thysanodes*)

Natural History

The fringed myotis bat is found throughout California to at least 1950 m (6400 ft.) elevation in the Sierra Nevada mountain range. This species of bat is found from low-lying deserts, to high elevation coniferous forests. It is a federal species of concern but is not state listed in California. They feed on beetles, and other small invertebrates. This bat species roosts in caves, mines, buildings, and crevices with separate day and night roosts. Mating occurs in the fall, followed by delayed fertilization. Offspring are born from May- July.

Known Occurrences in the Impact Area

A bat study was contracted by DTPW in August of 1999, in the project area (see attachment). While the purpose of the study was not to identify bat species, some species were identified. The presence of the fringed myotis bat was not detected (see attached bat habitat assessment).

Potential Effects of the Proposed Project on the Fringed Myotis Bat

The bridge is currently being used by bats as a night roost. Because work would occur on the underside of the bridge that could disturb roosting bats, construction will be limited to daylight hours only. No roosting bats will be disturbed. Because there is only a small likelihood that the fringed myotis bat will occur in the project area, and because the retrofit would not affect its potential habitat; the project, as described, is not likely to adversely affect this species of bat.

Long-eared myotis bat (<i>Myotis evotis</i>)
--

Natural History

Although the long-eared myotis bat is found in a variety of communities throughout California, it is considered to be uncommon throughout its range. It is a federal species of concern and not state listed in California. They tend to avoid xeric regions, and tend to occur principally in regions that are more temperate. This species primarily feeds upon beetles, moths, and spiders. It is reported that it eats more beetles than any other bat species. It roosts in rock crevices, buildings, and snags.

Known Occurrences in the Impact Area

The presence of the long-eared myotis bat has not been confirmed in the project area. It is thought that they could use this site as a bat night roost. However, only signs of pallid bats have been detected (See attached bat habitat assessment).

Potential Effects of the Proposed Project on the Long-Eared Myotis Bat

The bridge is currently being used by bats as a night roost. Because work would occur on the underside of the bridge that could disturb roosting bats, construction will be limited to daylight hours only. No roosting bats will be disturbed. As a result, the project is not likely to adversely affect the long-eared myotis bat.

Long-legged myotis bat (*Myotis volans*)

Natural History

The long-legged myotis bat occurs throughout California. It is a federal species of concern but is not listed in California. It is most common in woodland and forest habitat above 1050 m (3500-ft) elevation. The long-legged bat feeds mainly on moths and other flying insects; usually taking its prey over water or open patches in forests. The species roosts in rock crevices, buildings, under tree bark, and in snags. They are nocturnal, emerging from their day roost around dusk (CDFG 1990).

Known Occurrences in the Impact Area

A bat study was contracted by DTPW in August of 1999, in the project area (see attached bat habitat assessment). While the purpose of the study was not to identify bat species, some species were identified. The presence of the long legged myotis bat was not detected.

Potential Effects of the proposed project on the Long-legged Myotis Bat

The bridge is currently being used by bats as a night roost. Because work would occur on the underside of the bridge that could disturb roosting bats, construction will be limited to daylight hours only. No roosting bats will be disturbed. As a result, the project is not likely to adversely affect the long-legged myotis bat.

Yuma myotis bat (*Myotis yumanensis*)

Natural History

The Yuma myotis bat is a federal and state species of concern. It is found throughout California from lower elevations to 1500 m (4800 ft.) in association with most low elevation reservoirs. This bat roosts in buildings, trees, mines, and rock crevices. They feed mostly on emerging aquatic insects, over still water or vegetation.

Known Occurrences in the Impact Area

A bat study was contracted by DTPW in August of 1999, in the project area (see attached bat habitat assessment). While the purpose of the study was not to identify bat species, some species were identified. The presence of the Yuma myotis bat was not detected.

Potential Effects of the Proposed Project on the Yuma myotis bat

The bridge is currently being used by bats as a night roost. Because work would occur on the underside of the bridge that could disturb roosting bats, construction will be limited to daylight hours only. No roosting bats will be disturbed. As a result of these conditions, the project, as described, is not likely to adversely affect the Yuma myotis bat.

Pallid Bat (<i>Antrozous pallidus</i>)
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Natural History

Pallid bats are primarily a crevice roosting species. Common roosting sites include rock crevices, old buildings, bridges, caves, old mines, and trees. Pallid bats are colonial with a typical roost consisting of 30-70 individuals (Pierson and Erickson 1995). Pallid bats feed primarily on arthropods plucked off leaves, or off the ground. Their prey generally includes assorted beetles, scorpions, and Jerusalem crickets. Pallid bats are state listed as a species of special concern, but have no federal listing.

Known Occurrences in the Impact Area

Although the pallid bat was not included in the USFWS and CNDDDB lists for the Watmaugh Road Bridge area, it is thought to use the bridge as a night roost. The evidence for this species includes guano at the project site that consists primarily of Jerusalem crickets parts in various states of decomposition (Greg Tatarian personal communication). Beyond this, they are well known to use bridges, and are well within their respective range at the Watmaugh Road Bridge.

Potential Effects of the Proposed project on the Pallid Bat

The bridge is currently being used by bats as a night roost. Because work would occur on the underside of the bridge that could disturb roosting bats, construction will be limited to daylight hours only. No roosting bats will be disturbed. As a result, the project is not likely to adversely affect the pallid bat.

Other Impacts and Special Conditions

Swallows

There are swallow nests located under the bridge deck. Because work will occur on the underside of the bridge which could disturb nesting swallows (if present), netting or other bird barrier material will be installed a minimum of 6 meters (20 ft.) in both directions from the areas where people will be working. The barrier will prevent swallows from nesting. This barrier will be installed before March 1, the beginning of nesting season for swallows, and removed September 1, or when no

longer needed. The barrier will be inspected every two weeks during project construction and repaired as necessary and removed after project construction is completed. No nests containing birds will be disturbed.

Riparian Vegetation

Pruning and removal of some willows, white alder, and blackberries, which provide cover at the banks of the creek, will be necessary to allow access to the work on the piers. There will also be some pruning and removal of vegetation at the access road. The following conditions will be required of the construction contract to ensure that the long term impact to riparian vegetation will be minimal. Minor pruning of willows and other riparian species will be required for preparation of the access road. Cutting will be minimized. Willows and other plants that resprout will be cut at grade if necessary with no roots removed from the ground. Revegetation with the same plant species removed will be done as needed if plants cut at grade do not resprout.

Water Quality

Clean imported river run material will be used to create the diversion dams. Water from the footing excavations, and work area if necessary, will be pumped out to the top of bank and disposed of in a permitted manner, or alternatively, it will be pumped to the sediment stilling basin. No equipment will be operated within the flowing water during project construction. Water that comes in contact with wet concrete and has a pH greater than 9.0, must be pumped directly to a truck for upland disposal that is not within the top of bank, to the top of bank of any watershed.

Following construction, the culverts will be removed and the gravel left in place, with the creek flowing through the channel where the culverts are pulled. All excavated material for the footing caps will be removed from the creek channel and disposed of in a permitted manner. Grading will be done to restore all disturbed areas to natural grade and to match existing topography, with appropriate erosion control measures applied to slopes near the access road.

Cumulative Impacts

There will be no cumulative impacts between this proposed seismic retrofit and other county projects. In all disturbed areas, plants will re-establish naturally or will be replanted; wildlife will recolonize the disturbed habitat as well.

Personal Contacts

1. Joyce Ambrosius (US Department of the Interior, National Marine Fisheries Service).
2. Pete Straub (Army Corps of Engineers).
3. Bill Cox, Regional Fisheries Biologist (California Department of Fish and Game).

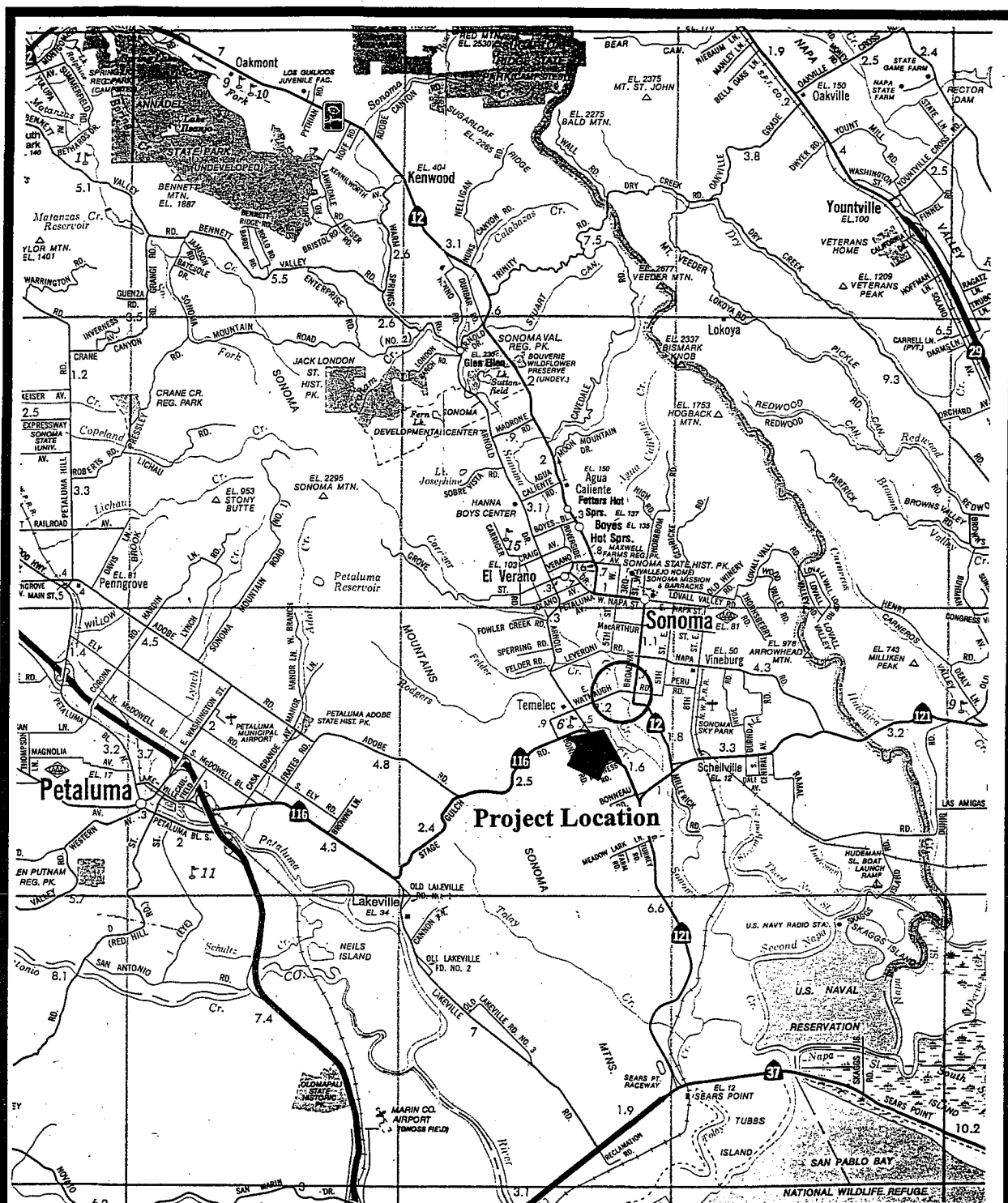
4. Harry Mossman, Biological Technician (United States Department of the Interior, Fish and Wildlife Service).
5. Dr. Philip Northen, Professor of Biology and current Chairperson, (Sonoma State University).
6. Cecilia Brown, Biologist, (USFWS).

Literature Cited

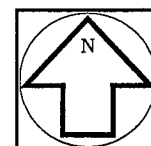
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2. California Department of Fish and Game, *California's Wildlife volumes I, II, and III*, November 1990.
3. California Department of Fish and Game, *Fish Species of Special Concern in California*, June 1995.
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5. California Department of Fish and Game, *Species of Special Concern in California*, 1994.
6. California Department of Fish and Game Natural Heritage Division, *Natural Diversity DataBase Sonoma, Sears Point, Petaluma River, and Glen Ellen Quads*, June, 1999.
7. California Department of Fish and Game Natural Heritage Division, *Natural Diversity Data Base List of California Terrestrial Natural Communities Recognized by the Natural Diversity Data Base*, December, 1997.
8. Hickman, J.C., ed. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley CA. 1400 pp.
9. Messer and Brumbaugh, 1989. The distribution and status of the California Freshwater shrimp, *Syncaris pacifica*. CDFG Final report.
10. Tatarian, G. and Northen, P. T. 1999. *Bat Habitat Assessment for Bridge Seismic Retrofits*.
11. United States Department of the Interior, Fish and Wildlife Service, *Species Lists for Sonoma County, Sonoma, Sears Point, Glen Ellen, and Petaluma River Quads* September 1999.

List of Attachments:

- ✓ Graphics
- ✓ Site Biological Survey
- ✓ CNDDDB Records
- ✓ USFWS Species List
- ✓ CNPS Species List
- ✓ Bat Habitat Assessment
- ✓ California Freshwater Shrimp Habitat Assessment
- ✓ SSU Aquatic Wildlife Surveys



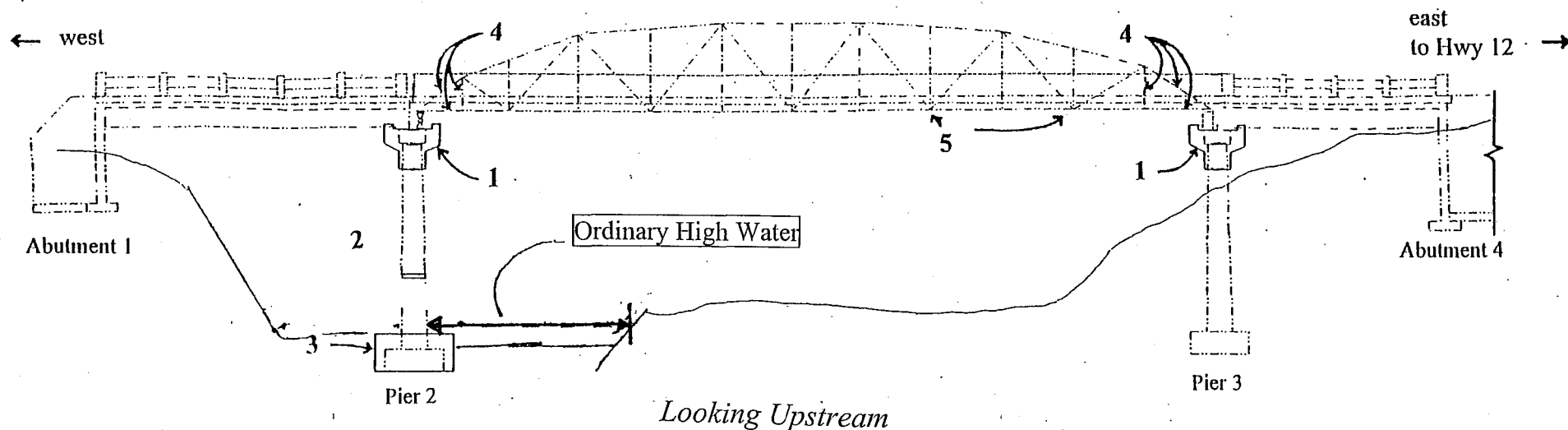
PROJECT VICINITY MAP



1" = 3 Mi.

Source: Sonoma County Permit and Resource Management Department, 1998. CPS.

Figure 1



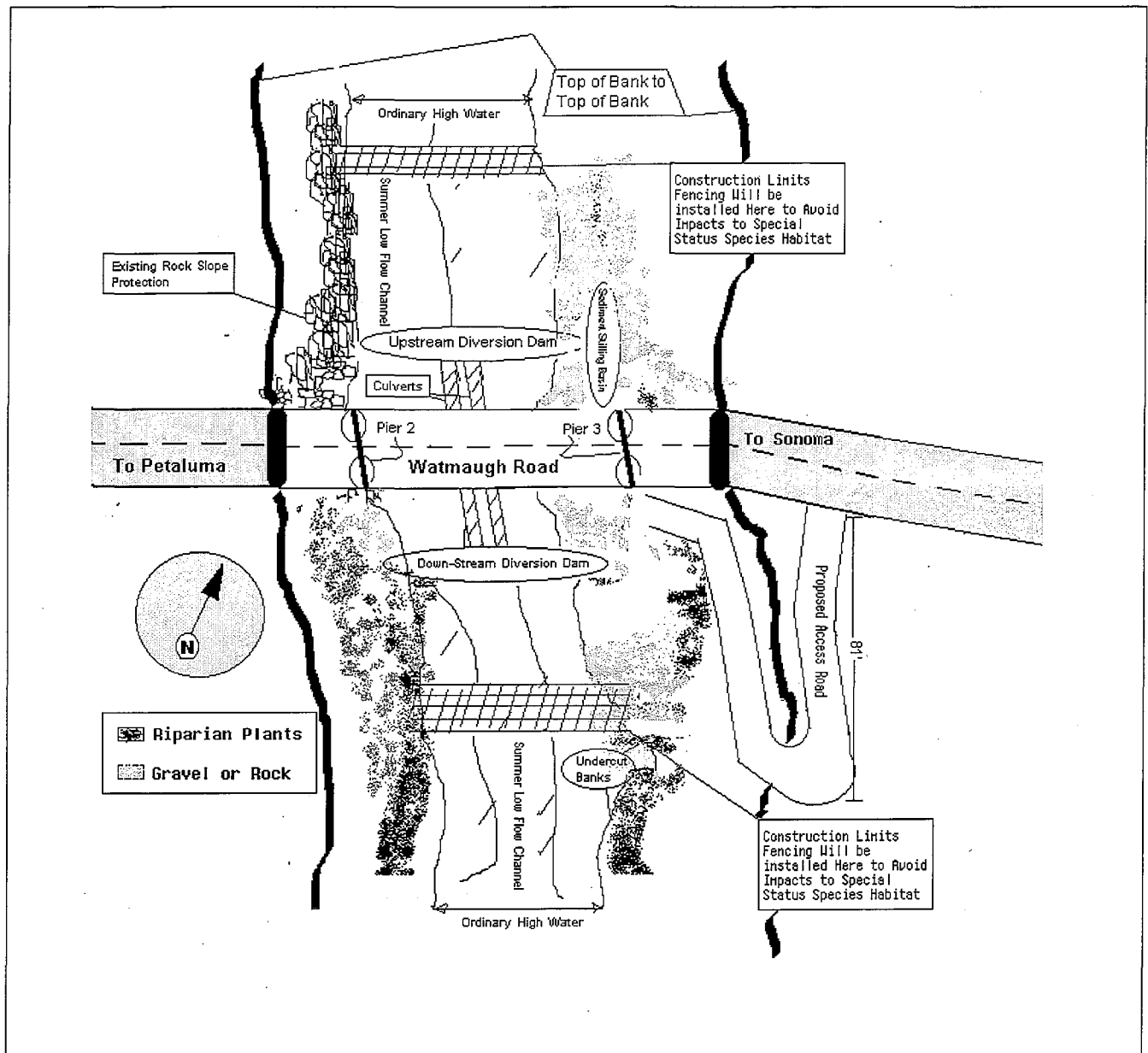
Retrofit Locations and Types

- 1 = Pier cap retrofit
- 2 = Column concrete rehabilitation
- 3 = Footing retrofit
- 4 = Truss member retrofit
- 5 = Deck to floor beam connections (multiple locations on bridge deck)

Watmaugh Road Bridge Over Sonoma Creek

Cross Section Illustrating Retrofit Locations

(Not To Scale)



Watmaugh Road over Sonoma Creek Seismic Retrofit

Plan View

(Not to scale)

Source: Sonoma County PRMD, 2000. RAS.

Figure 3

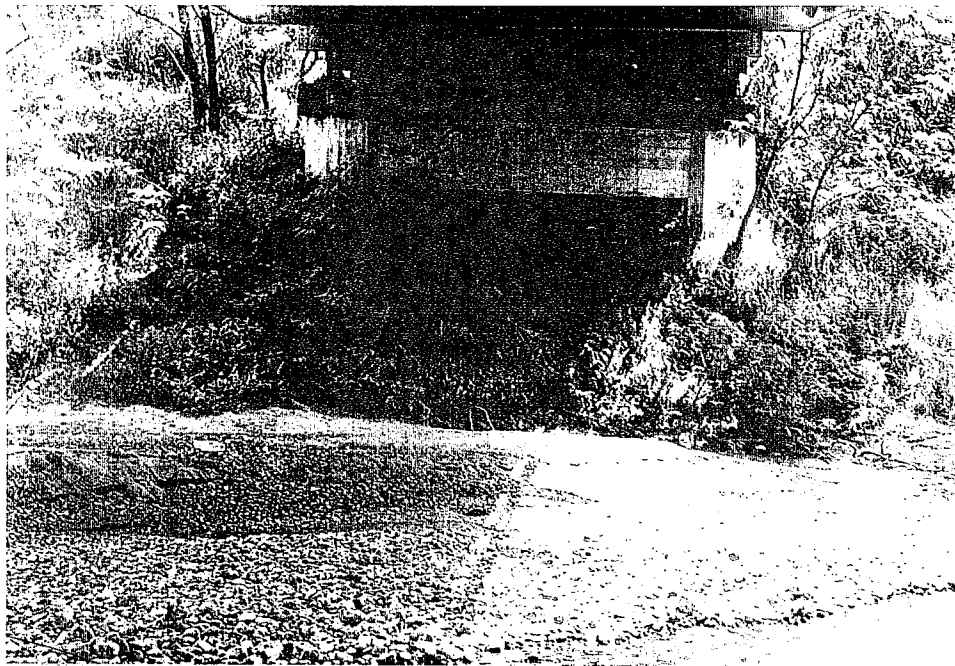


Photo 1



Photo 2

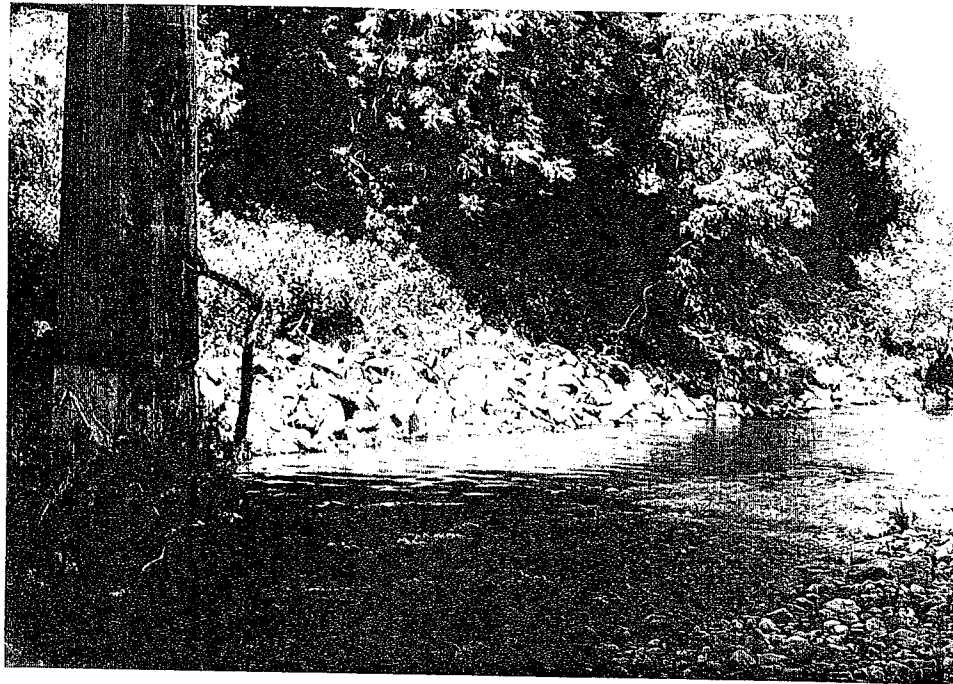


Photo 3



Photo 4

**WATMAUGH ROAD OVER SONOMA CREEK BRIDGE SEISMIC RETROFIT
PROJECT SITE PHOTOS**

Source: Sonoma County Permit and
Resource Management Department. 1999. PS.

See Figure 6 for a description of the above photos.

Figure 4

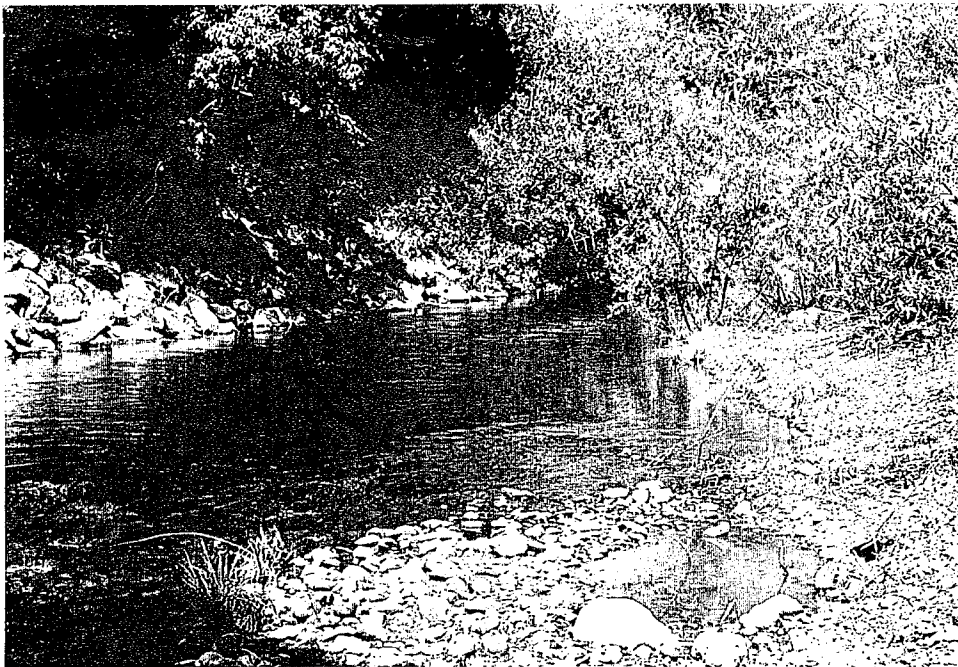


Photo 5

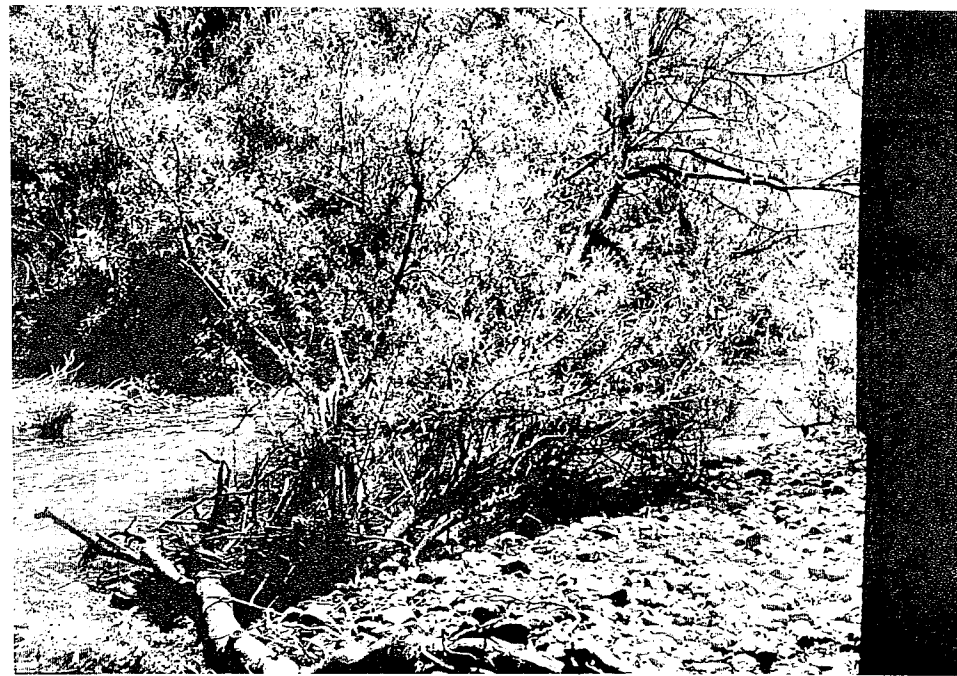


Photo 6



Photo 7

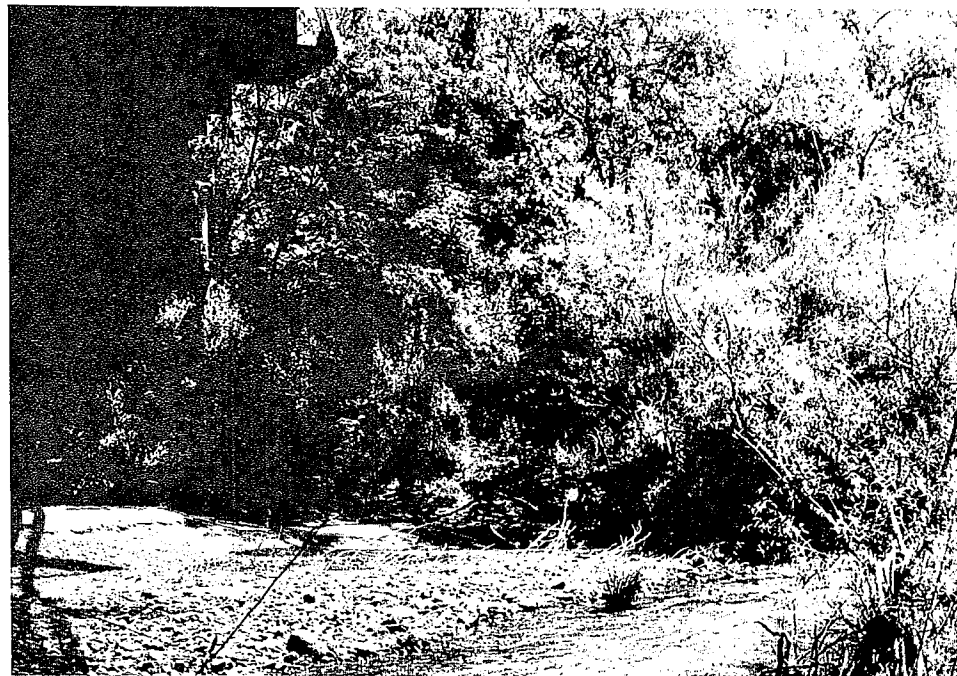


Photo 8

See Figure 6 for a description of the above photos.

**WATMAUGH ROAD OVER SONOMA CREEK BRIDGE SEISMIC RETROFIT
PROJECT SITE PHOTOS**

Source: Sonoma County Permit and
Resource Management Department, 1999. PS.

Figure 5

Photograph Information Figures 4&5

- Photo 1. Looking east at pier 3 under the bridge with Summer flow. The access road will be in the southeast quadrant in the right of this photo.
- Photo 2. Looking west at pier 2 under the bridge. The base of pier 2 will be rehabilitated and the footing will be strengthened with concrete and rock slope protection (RSP).
- Photo 3. This photo shows the creek channel looking upstream from pier 2. The upstream bank has preexisting RSP on the west side.
- Photo 4. Looking further upstream from the bridge. Note the dense willows overhanging the water and some big-leaf maple.
- Photo 5. Looking upstream at the shallow side of the creek. The upstream diversion will be built in this area.
- Photo 6. Looking downstream from under the bridge. Pier 2 is on the right of the photo.
- Photo 7. The southeast corner of the bridge, where the access will leave Watmaugh Road and proceed to the work area under the bridge.
- Photo 8. Pier 3, where just to the right, is where the access road will be graded down the bank onto the gravel bar. Note the overhanging vegetation to the far right of the photo (also see figure 3).

Photograph Information
for Figures 4&5 of the
Watmaugh Road over Sonoma Creek Seismic Retrofit

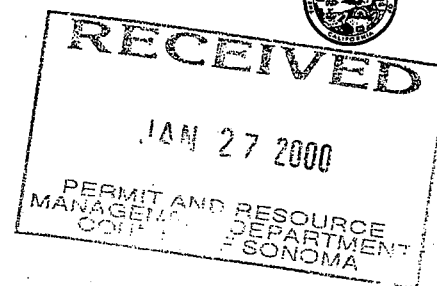
Figure 6

APPENDIX C CALIFORNIA FRESHWATER SHRIMP HABITAT ASSESSMENT

Habitat Assessment for the California Freshwater Shrimp at Three Bridges on
Sonoma Creek, January, 2000

DEPARTMENT OF FISH AND GAME

POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500



January 26, 2000

Mr. Richard Stabler
Permit and Resource Management Department
County of Sonoma
2550 Ventura Avenue
Santa Rosa, California 95403-2829

Dear Richard:

I have reviewed the report of your habitat assessment for the California freshwater shrimp (*Syncaris pacifica*) at Watmaugh Bridge, Riverside Bridge, and Boyes Bridge on Sonoma Creek. You have provided an accurate and acceptable assessment of the habitat present within the potential impact area of the seismic retrofit projects on these three bridges.

If there are any further questions on the freshwater shrimp or its habitat please call me at 707-823-1001.

Sincerely,

Bill Cox
District Fishery Biologist
Sonoma / Marin

Conserving California's Wildlife Since 1870

Habitat Assessment for The California Freshwater Shrimp (*Syncaris pacifica*) at Three Bridges on Sonoma Creek

By Richard Stabler, PRMD Environmental Specialist

Introduction

The primary goal of this study was to map and quantify the California freshwater shrimp habitat in the potential impact areas of three bridges that are scheduled for work in the Sonoma Valley. The California freshwater shrimp is state and federally listed as an endangered species and habitat loss due to construction at these sites may require mitigation that would necessitate the delineation of habitat there.

The California freshwater shrimp is found primarily in stream reaches where the banks are undercut, have exposed root, and overhanging vegetation or woody debris associated with them. These areas are, by their nature, structurally diverse and are generally considered the primary layer for defining shrimp habitat. The best habitat for shrimp is found in streams with 30-90 cm (12-35 in) of depth, with exposed live roots along undercut banks (especially willows and alder), with overhanging stream vegetation (Fong and Vandenberg 1998). It seems that the before described habitat is most important during the winter months and habitat preferences may change in late spring, through summer. Important summer habitat may include positive associations with particular plants and trailing terrestrial vegetation, however, more research appears to be needed to study these factors. Further research is also needed to determine whether both winter and summer habitat needs to occur in the same area, or if individual shrimp can migrate into appropriate seasonal habitat (Fong and Vandenberg 1998).

Methods

Habitat Parameters

The method of determining habitat for freshwater shrimp at the three bridge sites was based upon discussions with experts in the field; (Larry Serpa, Bill Cox, and Darren Fong) and by reviewing the literature, (Fong and Vandenberg 1998), (Messer and Brumbaugh 1988). The elements that are important to shrimp for habitat were extracted from these sources and made into a data collection form that was reviewed along each transect during this study. The elements included water depth, overhanging vegetation, woody debris, aquatic plants, downed wood, aquatic roots, canopy cover, and bank morphology. Other factors that were described included dominate substrate, confinement determination, and an approximate water slope/energy gradient, which were adapted from the California Department of Fish and Game (1991). These relatively large scale factors were determined for each bridge site and were not determined on a micro habitat basis. The thought behind collecting these larger scale data was to set the stage for the types of habitat that may be present in a particular location. As a result, these data were not directly evaluated when shrimp habitat was assigned, but were by default, embedded into the analysis.

A particular reach was evaluated as habitat when these features combined in a structural unit that would be likely to support shrimp. In turn, a reach was rejected as habitat when it lacked key elements such as water depth, aquatic vegetation, debris, ect. A reach was not included as habitat when these features were relatively sparse, not combining with other key elements, or otherwise not coalescing to produce the structured habitat known to contain shrimp.

Sampling Procedure

Each site was visited between November 23-24, 1999 before winter flows had returned. The channel typing method was done first for each bridge and included entering in physical data (see copy of form). The actual sampling procedure involved dividing each bridge into quadrants from the center-line under the bridge, to the end of the predetermined potential area of impact for that specific site. This was done on the up and downstream side of each bridge along the stream edge. A flexible measuring tape was stretched from the 0 point (bridge center-line) to the end of the area of potential impact, such that it made a transect through that quadrant. Data were collected along the transect, starting from the 0 point moving toward the end of the transect. At the 0 point, I entered data for each column, (see form). Then I would move along the bank until the conditions of the habitat changed significantly, (i.e. change in > 6 inches of water depth, existence of undercut banks, presence of aquatic plants, etc.). This was done in all quadrants at all three bridge location, and was illustrated by creating a map for each bridge site (figs.1-3). Habitat was delineated based upon examining the set of critical elements collected at each site, as well as looking at the other physical data, field notes, and prior expert opinions from previous field visits. The total habitat for each bridge site is simply a tally of the habitat characterized from each quadrant, at that bridge site.

Results

As mentioned previously, in the methods section, each bridge site was split into quadrants. Following that logic, the results will be reported in a by bridge and within quadrant fashion. Further, each habitat segment is designated with alphabetic symbol to identify it within the following text (figs. 1-3).

Watmaugh Road Bridge

At Watmaugh Road, the Creek generally consists of a relatively low to moderate gradient stream course, consisting primary of a long riffle with two pools, one large and one relatively small (fig.1).

In the northwest quadrant, there was no habitat found. The reach consisted of a small exposed pool near the bridge, and a long shallow riffle above, with rock slope protection along the bank. The small pool under the bridge was ruled-out on the basis of the stream gradient being too high in that area, and the riffle too shallow. In the northeast quadrant, there was no habitat found either. The area from the bridge north, to 75 ft, consists of a low-moderate gradient riffle, with the greatest depth around 6 in (summer flow depth). The aquatic vegetation in this area is extremely sparse, with most of it occurring on the adjacent gravelbar such that would not provide shrimp habitat. The southwest quadrant consists of a 60 ft long moderate gradient riffle with a 15 ft long sidepool at the end of the

transect (fig.1 "A"). The small pool consists of a backwater that is slightly deeper than the surrounding area and has aquatic vegetation associated with it, as well as having willow overhanging it and providing shade. It was considered 15 ft of shrimp habitat. The southeast quadrant provides most of the habitat at the Watmaugh Road site. It begins near the bridge as a shallow (5 in \times depth) moderate gradient riffle, but at 52 ft it becomes a corner pool that is somewhat enhanced by a large rootwad (fig.1 "B"). The pool itself extends beyond the study zone, (fig.1 "B") and is overhung by willows and does support some aquatic vegetation (*Ludwigia peploides*). The pool is swift in the mid section where the bulk of the flow directs itself, but is relatively still near the bank due to the copious aquatic vegetation and debris that occurs there.

Riverside Road Bridge

Sonoma Creek at Riverside Drive starts north of the bridge as a relatively low gradient riffle and becomes a rather large, deep, mid-channel pool that was formed in part by the existing west pier of Riverside bridge and the remanent concrete piers that line the west bank near the bridge. The maximum pool depth during the summer is 6-7 ft. Downstream the pool constricts into a shallow low gradient riffle.

In the northwest quadrant, at the origin of the transect to 16 ft north, there is no shrimp habitat. This reach is characterized by a relatively deep area but has little structure in the water and has too high of a flow velocity for shrimp to realistically occupy this area. From the point of 16 ft north to 39 ft north, is an area of 23 ft that is included as shrimp habitat (fig.2 "A"). This area has the structure necessary and is somewhat protected from the main flow of the creek. The area between points 39 ft and 49 ft is not habitat because of the lack of roots, or other plant parts, that would make this shrimp habitat. There is shrimp habitat from a point 49 ft north to 60 ft north, (fig 2 "B"). This reach is 11 ft in length and the main feature is a large root wad that creates a pool-like quality with some backwater. From the end of this point north, the creek becomes shallow and lacks habitat features. The total shrimp habitat recorded for this quadrant is 34 linear ft.

In the southwest quadrant, from the 0 point to a point 43 feet south there is no shrimp habitat. The water depth is 3-5 ft, but there is little cover and almost no structure here. The principle features are large concrete piers that are not normally thought to support shrimp. The area from 43 ft to 64 ft south is shrimp habitat (fig 2 "D"). This area has two very large living root wads, one white alder and the other an arroyo willow. This assemblage also has blackberry associated with it, and good water depth. The area beyond 64 ft south, in this quadrant, becomes relatively shallow, exposed, and lacks habitat features. Adjacent to this extreme southern reach is a relatively shallow (6-7 in deep) secondary pool (fig 2 "E"). This pool has 7 ft within the study zone, and has the complex of vegetation and bank morphology to include it as shrimp habitat. The total shrimp habitat that is recorded for this quadrant is 28 linear ft.

In the northeast quadrant, from the origin of the transect to a point 35 ft north, there is no shrimp habitat. The area consists of a muddy bottom with almost no structure. Moving north, to the area designated "C" (fig. 2), is a back water area that does have downed wood, aquatic plants, and is considered to be shrimp habitat. Above the 52 ft north point, the creek becomes a shallow riffle with little vegetation or structure that could otherwise be considered habitat for shrimp. The total shrimp

habitat recorded for this quadrant is 17 linear ft.

In the southeast quadrant, from the 0 point to a point 29.5 ft south, there is no shrimp habitat. The channel bottom is muddy and is relatively featureless. Beyond this point, moving south, is the area demarcated as "F" (fig 2). This area is recorded as shrimp habitat and has undercut banks with woody debris and some aquatic roots that provide the necessary structure. Moving south, along the transect to a point beyond 43 ft, to a point 74 ft south, there is no shrimp habitat. This area, while having good water depth, lacks other features that would include it as habitat. Just beyond this is an area labeled "G" (fig 2). It consists of aquatic plants such as blackberries, woody debris, exposed roots, and a slightly undercut bank that is considered shrimp habitat. Moving south, from a point 84 ft south to 101 ft south, there is no shrimp habitat. This area lacks vegetation, exposed roots, and other elements that would include it as shrimp habitat. Further south is an area labeled "H" (fig.2). This area is 33 ft long and has aquatic plants, exposed roots, and woody debris that give it the features to justify including it as shrimp habitat. The area south beyond area "H," to the end of the transect, is not included as habitat. This area consists of features that, if combined, may provide habitat. However, in this case, the features are spread sparingly, and do not elevate any area to habitat status south of 134 ft. The total shrimp habitat that is delineated within this quadrant is 56.5 linear ft.

Boyes Blvd Bridge

Sonoma Creek at Boyes Road Bridge consists of a long glide with relatively low water velocity, almost no turbulence, and a substratum consisting primarily of sand, gravel, and cobbles. The creek in this location is in a residential area - remnants of this condition are apparent with various forms of refuse in the creek, as well as along the banks. The main plant species that provide habitat and cover in this area are arroyo willows, sedges, and blackberries. In total, there was 233 linear ft of shrimp habitat recorded at this site (fig. 3).

In the northwest quadrant there is no habitat directly under the bridge from the 0 point to 9 ft north (fig 3). This area has few objects actually in the water, making it a non-habitat area, but does have sedges hanging just above. North of this point, is the area labeled "A" (fig 3), which extends to 42 ft above the 0 point. This area is 33 ft long and has a long row of sedges with undercut bank and exposed aquatic roots for the first 10 ft, and has overhanging willows along with the former features for the balance of this zone. The area just north of this from 42 ft to 53 feet is not considered to be habitat. This area is characterized by a relatively barren patch with large rocks that would not support shrimp. Just north of this is the area labeled "B" (fig. 3), which is recorded as 31 ft of shrimp habitat. This area extends to 84 ft north of the 0 point and consists of relatively deep water with steep banks and structural features such as downed wood, aquatic plants (mostly *Ludwigia peploides*), and intermittent blackberry roots. Further north, along the transect, from 84 ft to 98 ft north, there is no shrimp habitat. The area is characterized by a steep bank that is relatively deep, yet it lacks debris or plant material that would constitute shrimp habitat. In the final 2 ft of this transect, in the area labeled "C," (fig 3), there is 2 feet of shrimp habitat. This area is influenced by a log that creates a backwater, allowing debris and plant material to collect and proliferate. There

is a total of 66 ft of shrimp habitat recorded for this quadrant.

In the Southwest quadrant, there is no habitat directly under the bridge to a point 12 ft south. Although it has some vegetation associated with it, and deep water, it has little else. It is directly under the bridge, and as a result, the vegetation is sparse. South from this zone, to a point 35 ft below the bridge, there is shrimp habitat (labeled "D" on fig. 3). Area "D" is 23 ft long and is composed of steep mud banks, sedges in and above the water, and exposed roots. This area is structurally diverse and is therefore considered shrimp habitat. Beyond area "D", south to a point 67 ft below the center of the bridge, is not shrimp habitat (fig 3). This region does get relatively shallow, but more importantly, the aquatic plants, debris, and roots that make shrimp habitat are absent. Moving south from the 67 ft point, (fig 3), there is shrimp habitat (fig. 3 labeled "E"). This area is similar to that just above, however, it has willows that overhang the creek, which provide aquatic roots and anchorage to aquatic plants. In total, there is 56 ft of shrimp habitat recorded in this quadrant.

In the northwest quadrant there is no habitat from the 0 point under the bridge, to a point 33 ft north of the bridge. The area along the creek, within these points, is characterized by a large barren concrete footing that provides no attachment places for plants or debris. Although the footing does end at about 20 ft north of the 0 point of this transect, the mud bank and substratum that does occur is uncolonized by plants and has no debris that could be considered habitat. The area north of the 33 ft point to the end of the transect (100 ft) is considered to be shrimp habitat. While this area is not completely homogenous, there are constants that are found throughout this reach. There are sedges that line the bank and overhang the water, there are consistent exposed aquatic roots, and there is deep water with woody debris. For these reasons, this reach is lumped into one 67 ft long stretch of shrimp habitat, making the total habitat for this quadrant.

In the southeast quadrant there is no shrimp habitat from the 0 point to a point 26 ft south of the bridge. The area within these points is characterized largely by the barren concrete pier footing that extends beyond the bridge, and the barren mud bank that extends to 26 ft south of the centerline of the bridge. South from this point, to 42 ft, there is a large stand of willows that hang over the water providing shade and structure in the water from the upright tree, downed branches in the water, and a network of aquatic roots. Further south from a point 42 ft from the bridge, to a point 72 ft south, there is no shrimp habitat. This area is characterized by sparse aquatic plants and shallow waters. There is a confluence with a storm drain that has deposited alluvium along this area, and there are signs of direct human disturbance along this reach as well. For these reasons this area is not considered shrimp habitat. On the extreme south end of this transect there is shrimp habitat (fig 3 "H"). Habitat area "H" is 28 ft long and is characterized by deeper water (12 in), sedges lining the shore, and a complex of aquatic roots from a cottonwood tree higher on the bank. In total, there are 44 ft of shrimp habitat in this quadrant.

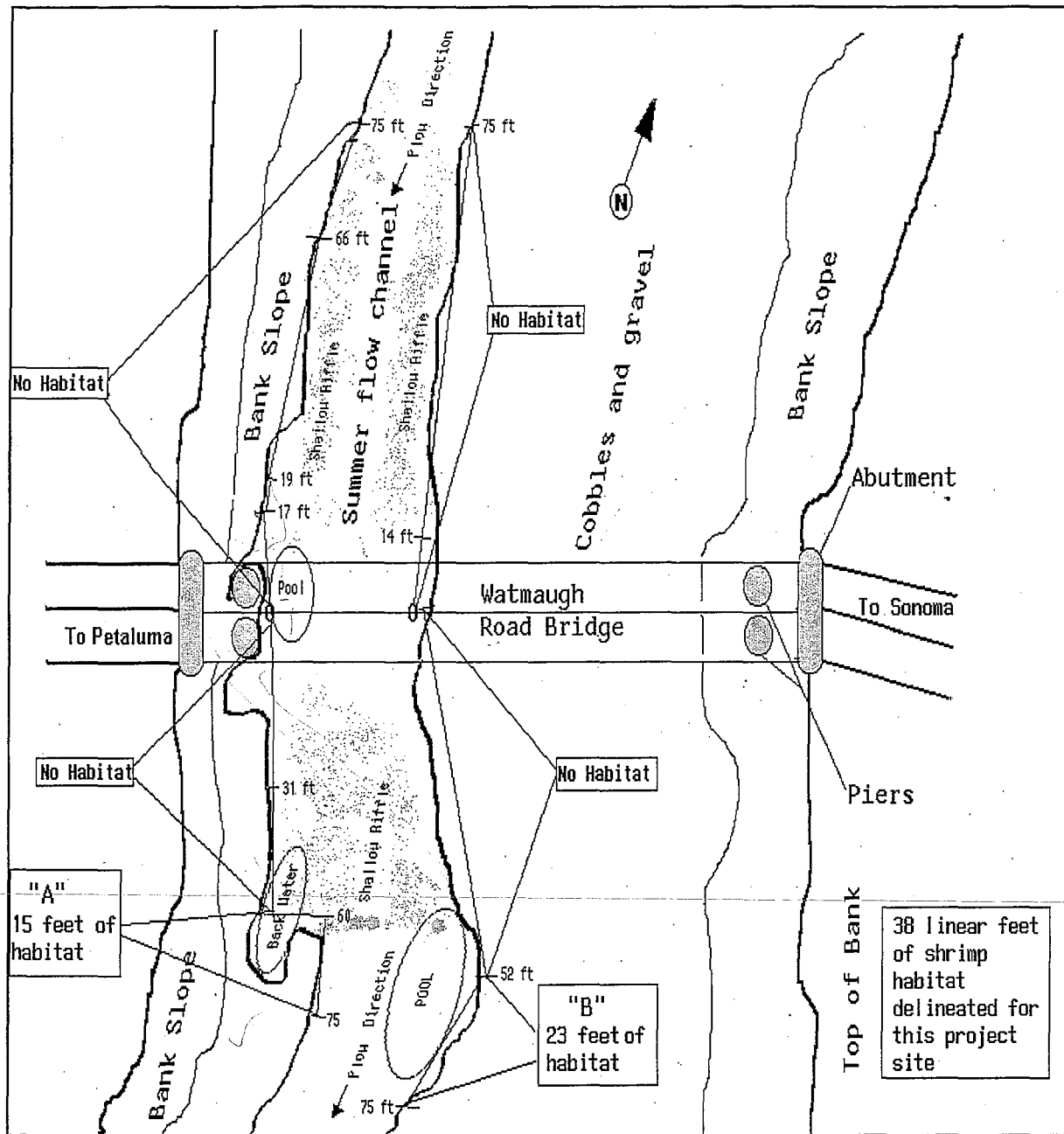
Personal Contacts

1. Bill Cox, Wildlife Biologist, (California Department of Fish and Game).

2. Larry Serpa, Wildlife Biologist, (Nature Conservancy).
3. Darren Fong, Wildlife Biologist, (National Parks Service).

Literature Cited

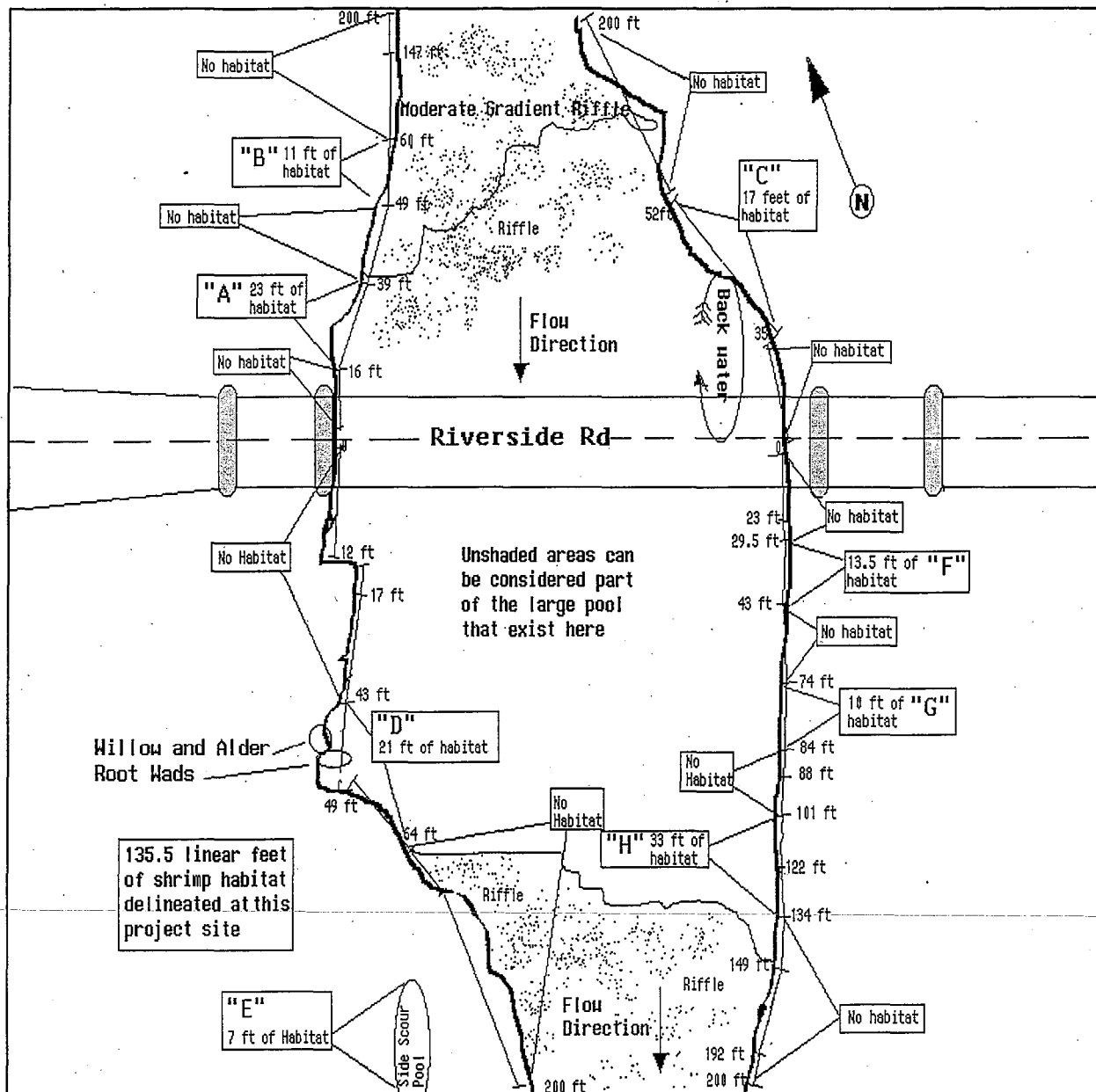
1. U.S. Fish and Wildlife Service, 1998. California Freshwater Shrimp (*Syncaris pacifica*) Recovery Plan. Region 1. U.S. Fish and Wildlife Service, Portland Oregon.
2. Messer, R. J. And Brumbaugh, J.H. 1989. The Distribution of the California Freshwater Shrimp, *Syncaris pacifica* (Holmes).



Watmaugh Road Bridge Over Sonoma Creek
California Freshwater Shrimp
Habitat Data

Figure 1

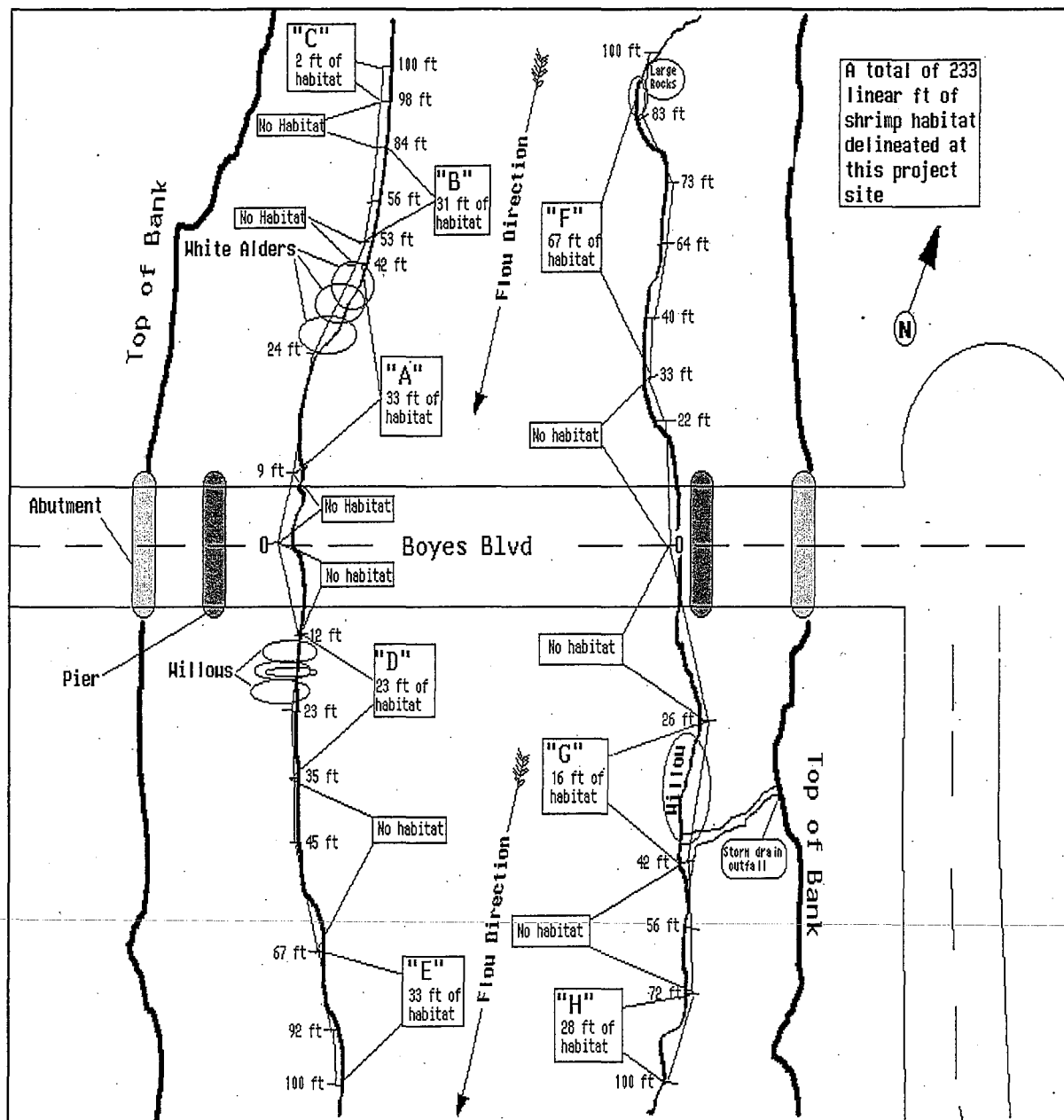
(Not to scale)



Riverside Road Bridge Over Sonoma Creek
California Freshwater Shrimp
Habitat Data

(Not to Scale)

Figure 2



Boyes Blvd Bridge Over Sonoma Creek
California Freshwater Shrimp
Habitat Data
(not to scale)



County of Sonoma Agenda Item Summary Report

Agenda Item Number:

(This Section for use by Clerk of the Board Only.)

Clerk of the Board
575 Administration Drive
Santa Rosa, CA 95403

To: Board of Supervisors

Board Agenda Date: December 11, 2012

Vote Requirement: 4/5

Department or Agency Name(s): Transportation and Public Works

Staff Name and Phone Number:

Thomas F. O'Kane, Jr. 707-565-3585

Supervisory District(s):

First

Title: Watmaugh Road Bridge Replacement Project

Recommended Actions:

- 1) Adopt a resolution certifying the Final Environmental Impact Report for the Watmaugh Road Bridge Replacement Project; and
- 2) Adopt a resolution making and adopting a Statement of Overriding Considerations, adopting the Mitigation Monitoring and Reporting Program, and approving the Watmaugh Road Bridge Replacement Project.

Executive Summary:

Watmaugh Bridge is located on Watmaugh Road over Sonoma Creek between Arnold Drive and Highway 12. The project site is designated as a Scenic Landscape Unit in the Sonoma County 2020 General Plan Open Space and Resource Conservation Element. The Sonoma County Official Zoning Database, places the bridge into two combining districts: the bridge in the Historic District (HD) and Sonoma Creek in the F2 Floodplain. The bridge is eligible for the state historic register but is not eligible for the national register. The bridge is in poor condition, earning a sufficiency rating of only 4 out of 100 in the annual safety inspections done by the state. The Transportation and Public Works Department (TPW) proposes to preserve the pony trusses of the existing bridge and attach them to a new bridge built on the same alignment as the existing bridge

Project Description:

The proposed bridge project would be located on Watmaugh Road where it crosses Sonoma Creek. The project would construct a replacement bridge within the approximate alignment of the existing bridge. The new bridge would be a two-span pre-stressed concrete box girder or concrete slab bridge that would be approximately 185 feet in length. The new bridge would support a 32 feet wide roadway, consisting of two 11-foot travel lanes and two 5-foot shoulders. The approach roadway width would also be widened to about 32 feet and taper until it conforms to the existing roadway at each end of the bridge.

To construct the new bridge, Cast in Drilled Hole (CIDH) concrete piers would be drilled into the banks of the creek at the location of the abutments and at the center pier, with the number and size of the CIDH piers to be determined prior to construction, based upon the results of a geotechnical report. Additional rock slope protection (RSP) may be included with the proposed bridge replacement. Prior to removal of the existing bridge, a debris catching platform would be constructed under the bridge. The platform would be supported by the existing structure over the water and would function to prevent concrete debris from falling into the creek during removal of the existing bridge deck. The project would be constructed within one spring-summer construction season, with the exception of tree removal which may be conducted during the previous fall and winter to avoid the migratory bird nesting season.

The existing bridge would be closed to traffic during construction. Alternate routes are available within the vicinity of Watmaugh Road to both the north and south, via Leveroni Road and State Highway 12/121. The maximum detour length would be approximately 5 miles.

Only minor amounts of additional right-of-way would be required to construct the project and temporary construction easements may be necessary. Relocation of existing utilities may also be needed.

Discussion of Issues:

The County held a public scoping meeting with the Environmental Review Committee on August 7, 2012 where an Initial Study was presented. ERC recommended an EIR be prepared, and scoped the EIR at that time. The Notice of Completion and Notice of Availability for the DEIR was circulated on September 27, 2012 for a 45 day comment period. A Draft EIR was prepared for this project, and a hearing was held on the document on October 16, 2012. Two speakers presented testimony on the Draft EIR. The primary comments addressed concerns over the loss of the historic and aesthetically pleasing existing bridge as well as safety concerns raised due to the perception that with the added road width of the new bridge, traffic speeds in the area will increase to unsafe levels.

Also, during the comment period, a total of 15 comment letters were received regarding the proposed project, including one letter from Caltrans that expressed concern over project related traffic since construction of the new bridge would require temporary closure of the bridge. While this would only be a temporary impact, and the EIR included mitigation to reduce this temporary impact, an additional mitigation measure was added to the EIR that would further address Caltrans concerns. Some of the concerns from the general public included the following:

- Several of the commenter's expressed concerns over the loss of the historic Watmaugh Road Bridge and most favored a retrofit or a rehabilitation project.
- Several expressed concern over the CEQA process and were concerned that the process was in some way modified or expedited.
- Several commenters expressed their concerns that adequate plans were not analyzed to prepare the document and that cost analysis of the proposed replacement project and the alternative seismic retrofit/rehab of the historic bridge alternative project included.
- Other commenter's focused on flood concerns from the proposed raised approaches, access to their property during construction, and concerns regarding the days and hours during a work week of the proposed construction work.
- Other commenter's expressed their concerns over particular Heritages trees on-site that could be

affected by the project and the potential right-of-way needs to construct the proposed project or one of the alternatives.

The Response to Caltrans comment was prepared and sent on November 21 and the complete set of Responses to Comments was prepared and circulated on November 28.

At the Board Hearing on the Final EIR, held on December 4, 2012, three additional comment letters were received and eight members of the public spoke on the merits on the project. None of the comments given raised new substantive issues or concerns not addressed in the EIR or past public meetings.

Prior Board Actions:

12/04/12 Board conducted public hearing on Final EIR for the Watmaugh Road Bridge Replacement Project
10/16/12 Board conducted public hearing on Draft EIR for the Watmaugh Road Bridge Replacement Project
9/18/2012 Board Action to take original jurisdiction for the Watmaugh Road Bridge Replacement Project EIR
7/31/2012 Board Action to approve design engineering services contract with Moffatt and Nichol

Strategic Plan Alignment: Goal 1: Safe, Healthy, and Caring Community

Invest in the Future. The project meets the needs of the community to provide a safe transportation network. The project also invests in the future by replacing aging public infrastructure.

Fiscal Summary - FY 12-13

Expenditures		Funding Source(s)	
Budgeted Amount	\$	Select an item.	\$
Add Appropriations Req'd.	\$	State/Federal	\$
	\$	Fees/Other	\$
	\$	Use of Fund Balance	\$
	\$	Contingencies	\$
	\$		\$
Total Expenditure	\$	Total Sources	\$

Narrative Explanation of Fiscal Impacts (If Required):

Staffing Impacts

Position Title (Payroll Classification)	Monthly Salary Range (A – I Step)	Additions (Number)	Deletions (Number)

Narrative Explanation of Staffing Impacts (If Required):			
Attachments:			
<p>Attachment 1: Resolution certifying the Final Environmental Impact Report for the Watmaugh Road Bridge Replacement Project; Attachment 2: Resolution making and adopting a Statement of Overriding Considerations, adopting the Mitigation Monitoring and Reporting Program, and approving the Watmaugh Road Bridge Replacement Project; Attachment #3: Resolution - Exhibit A; Attachment #4: Resolution - Exhibit B; Attachment #5: Resolution - Exhibit C; Attachment #6: Resolution - Exhibit D; Attachment #4: Resolution - Exhibit E.</p>			
Related Items "On File" with the Clerk of the Board:			

Date: 12/11/2012

Resolution of the Board of Supervisors of the County of Sonoma, State of California, Certifying the Final Environmental Impact Report for the Watmaugh Road Bridge Replacement Project (Supervisory District No. 1).

Resolved, that the Board of Supervisors (“the Board”) of the County of Sonoma (“the County”) hereby finds and determines as follows:

**Section 1.
Proposed Project.**

1.0 The Sonoma County Department of Transportation and Public Works (“TPW”) proposes to replace the existing 1929 Watmaugh Road Bridge where it crosses the Sonoma Creek. The project would remove the existing bridge and construct a replacement bridge within the approximate alignment of the existing bridge. The new bridge would be a two-span, pre-stressed concrete box girder or concrete slab bridge that approximately 185 feet in length. The new bridge would support a 32-foot wide roadway, consisting of two 11-foot wide travel lanes and two five-foot wide shoulders. The approach roadway width would also be widened to about 32 feet and taper until it conforms to the existing roadway at each end of the bridge. To construct the new bridge, Cast in Drilled Hole (“CIDH”) concrete piers would be drilled into the banks of the creek at the location of the abutments and at the center pier, with the number and size of the CIDH piers to be determined prior to construction, based upon the results of a geotechnical report. Prior to removal of the existing bridge, a debris-catching platform would be constructed under the bridge. The platform would be supported by the existing structure over the water and would function to prevent concrete debris from falling into the creek during removal of the existing bridge deck. The project would be constructed within one spring-summer construction season, with the exception of tree removal which may be conducted during the previous fall and winter to avoid the migratory bird nesting season. The existing bridge would be closed to traffic during construction, and traffic would be diverted onto alternate routes within the vicinity of Watmaugh Road to both the north and south, via Leveroni Road and State Highway 12/121. The maximum detour length would be approximately five (5) miles. Relocation of existing utilities may also be needed. The foregoing components of are collectively referred to hereinafter as the “Proposed Project.” The Proposed Project site is designated as a Scenic Landscape Unit in the Sonoma County 2020 General Plan Open Space and Resource Conservation Element. The Sonoma County Official Zoning Database places the bridge into two combining districts: the bridge itself is within the Historic Bridge Thematic District

(HD) and Sonoma Creek lies within the F2 Floodplain. Adjacent zoning districts include Biotic Resources (BR), Valley Oak Habitat (VOH), and Scenic Resource (SR) combining districts; Supervisorial District No. 1.

Section 2. Procedural History.

2.0 In the fall of 1998, TPW staff presented a prior version of the project to the Landmarks Commission to seismically retrofit the existing Watmaugh Road Bridge (the “1998 Project”). The 1998 Project was part of California’s statewide program to replace or retrofit bridges to comply with seismic safety standards. The 1998 Project was primarily terminated due to a finding by Caltrans that the bridge’s foundations were inadequate and undermined by scour in the creek. The discovery of other structural issues and the unavailability of federal funding to repair these structural deficiencies lent further support for abandoning the 1998 Project. The additional structural deficiencies, coupled with the narrow, inadequate bridge deck, the poor alignment of the existing bridge, poor sight distance of the existing bridge, and the fact that the Watmaugh Road Bridge was only eligible to receive federal bridge replacement funding, led TPW staff to begin to pursue the Proposed Project to replace the existing bridge in 2010.

2.1 On May 9, 2010, at the request of Caltrans, County staff held an informational meeting at the Sonoma Library to (i) present the concept for the Proposed Project’s plan to remove and replace the existing bridge and (ii) solicit input from the public. In addition, TPW staff presented and discussed the Proposed Project at three regularly scheduled meetings of the Sonoma County Landmarks Commission held on September 7, 2010, October 5, 2010, and February 1, 2011, respectively, at which time the Landmarks Commission and the general public provided input on the Proposed Project and possible alternatives. On June 7, 2011, TPW staff brought an additional informational item before the Landmarks Commission that proposed a bypass bridge just downstream from the existing 1929 bridge as an alternative to the Proposed Project.

2.2 The plans presented at each of the Landmarks Commission meetings met with opposition from the general public and members of the Commission. In response to the input received at those meetings, TPW staff redesigned the Proposed Project to preserve the existing truss elements found on the existing bridge and incorporate them into the new bridge design as non-structural components. This revised design, along with preserving the existing alignment, reduces visual impacts to the existing bridge and lessens impacts to the existing bridge’s Landmark status while still satisfying the principal objective of the Proposed Project – to meet the public transportation needs along Watmaugh Road.

2.3 On July 24, 2012, the Landmarks Commission formally considered the Proposed Project and recommended that the Board of Supervisors deny the replacement project based on (i) potential impacts to the historic resource and (ii) the Landmark Commission’s conclusion that the Proposed Project would conflict with the

purposes of the HD zoning to preserve the historic character of the bridge. The Landmarks Commission further recommended that the alternative alignment be similarly rejected due to impacts to the historic resource and renewed their request that rehabilitation of the bridge be evaluated further.

2.4 On July 31, 2012, in accordance with the procedures for Landmarks Commission review of proposed work on historic bridges established by Resolution No 98-0046, the Commission's recommendations and the response by TPW staff was submitted to the Board of Supervisors ("Board") at a duly noticed public meeting. After considering the testimony presented by the Landmarks Commission, TPW staff, and the general public, the Board: (i) approved a contract for technical studies and project design to allow the completion of an environmental review of the Proposed Project's potential environmental impacts, and (ii) directed County staff to initiate the environmental analysis for the Proposed Project required by the California Environmental Act ("CEQA") and the State CEQA Guidelines (including an evaluation of alternatives).

2.5 Based on the Board's action, TPW staff submitted the Proposed Project to the Sonoma County Permit and Resource Management Department ("PRMD") for environmental review. PRMD staff prepared an initial environmental study ("Initial Study") and submitted the Proposed Project to the Sonoma County Environmental Committee ("ERC"), as required by Sonoma County Code Section 23A-13. On August 7, 2012, the ERC reviewed the Initial Study and determined that a project-level environmental impact report ("EIR") was required for the Proposed Project. The ERC further determined the scope of and directed the preparation of an EIR to assesses potentially significant impacts associated with the Proposed Project as identified by the Initial Study.

2.6 The County utilized its own staff to prepare the EIR for the Proposed Project but contracted with various experts to prepare the technical studies necessary to complete the EIR, as permitted by CEQA Guidelines Section 15084. PRMD staff sent a notice of preparation ("NOP") for the required EIR to the Office of Planning and Research, all responsible and trustee agencies, and all interested persons on August 7, 2012, and provided a 30-day response period commencing ending on September 6, 2012, for those parties to submit comments regarding the specific scope and content of the EIR. The County received four (4) responses to the NOP, all of which were carefully considered in determining the scope and content of the EIR for the Proposed Project.

2.7 On September 18, 2012, the Board, in accordance with the provisions of Section 23A-XX to the Sonoma County Code, adopted Resolution No. 12-xxx taking original jurisdiction over the EIR for the Proposed Project to expedite the review of the EIR to ensure that the County does not lose the federal funding for the Proposed Project.

2.8 A draft EIR ("the Draft EIR") was completed for the Proposed Project and a Notice of Completion filed with the Office of Planning and Research on

October 1, 2012. The Draft EIR was made available for public and agency review and comment for a 45-day comment period commencing October 1, 2012, and ending on November 14, 2012.

2.9 The Board conducted a duly noticed public hearing on the Draft EIR on October 16, 2012. At the hearing, the Board heard and received all relevant oral and written testimony and evidence presented or filed regarding the Draft EIR. All interested persons were given the opportunity to hear and be heard. At the conclusion of public testimony at the hearing, the Board closed the hearing, gave preliminary comments on the Draft EIR, and directed PRMD staff to prepare responses to all comments received on the Draft EIR both at the October 16, 2012 hearing and through the end of the 45-day public comment period on November 14, 2012.

2.10 The County received 17 written and oral comments from public agencies and the general public during the 45-day public comment period. The County prepared written responses to all comments received on the Draft EIR and made revisions to the Draft EIR, as appropriate, in response to those comments. The written responses are set forth in a final EIR consisting of the Draft EIR and a Response to Comments Document dated December 2012 (collectively “the Final EIR”). The Response to Comments Document was completed for the Proposed Project on November 28, 2012, and made available to the public and provided to all responsible and commenting agencies on November 28, 2012. In addition, the County mailed a proposed written response to each public agency on comments made by that agency at least 10 days prior to certifying the EIR as required by CEQA Guidelines Section 15088(b).

2.11 Prior to the Board hearing on the Final EIR, PRMD and TPW staff prepared and distributed a staff report to the Board on the Final EIR and the Proposed Project. The staff report described the Proposed Project and the Final EIR, analyzed all Project issues, and recommended that the Board certify the Final EIR, adopt a statement of overriding considerations, and approval of the Proposed Project.

2.12 The Board conducted a duly noticed hearing on the Final EIR and the merits of the Proposed Project on December 4, 2012. At the hearing, the Board heard and received all relevant oral and written testimony and evidence presented or filed regarding the Final EIR and the Proposed Project. All interested persons were given the opportunity to hear and be heard. Three additional comment letters were submitted and eight members of the public spoke on the merits on the project at the hearing. The Board reviewed this additional material, both written and oral, and determined that none of these additional comments raised new substantive issues or concerns that were not previously addressed in the EIR or past public meetings. At the conclusion of public testimony, the Board closed the hearing, considered and discussed the adequacy of the Final EIR and the merits of the Proposed Project, and, on a 5-0 straw vote, determined to certify the Final EIR, adopt a statement of overriding considerations, and approve the Proposed Project. County Counsel and PRMD staff were directed to return to the Board with a resolution reflecting the consideration and actions of the Board.

2.13 The Board has had an opportunity to review this resolution and hereby finds that it accurately sets forth the intentions of the Board regarding the Final EIR.

2.14 The Board's decisions herein are based upon the testimony and evidence presented to the County orally or in writing prior to the close of the Board hearing on December 4, 2012 ("the record of these proceedings"). Any information submitted after the close of the Board hearing was deemed late and not considered by the Board.

Section 3. CEQA Compliance.

3.0 The Draft EIR and the Final EIR were prepared, noticed, and made available for public and agency review in accordance with all procedural and substantive requirements of CEQA, the State CEQA Guidelines, and local ordinances.

3.1 The Final EIR represents a good faith effort to provide full and adequate disclosure of the environmental impacts of the Proposed Project.

3.2 The Final EIR constitutes an adequate, accurate, objective, and complete EIR for the purpose of approving the Proposed Project.

Section 4. Evidence in the Record.

4.0 The findings and determinations set forth in this resolution are based upon the record of these proceedings. References to specific statutes, ordinances, regulations, reports, or documents in a finding or determination are not intended to identify those sources as the exclusive bases for the finding or determination.

Now, Therefore, Be it Further Resolved, that, based on the foregoing findings and determinations and the record of these proceedings, the Board hereby declares and orders as follows:

1. The foregoing findings and determinations are true and correct, are supported by substantial evidence in the record, and are adopted as hereinabove set forth.

2. The Board certifies that the Final EIR has been completed in compliance with CEQA, the Final EIR was presented to the Board and the Board reviewed and considered the information contained in the Final EIR prior to approving the Proposed Project, and the Final EIR reflects the independent judgment and analysis of the Board.

3. The Clerk of the Board is designated as the custodian of the documents and other materials that constitute the record of the proceedings upon which the Board's decisions herein are based. These documents may be found at the office of the Clerk of

the Board of Supervisors, 575 Administration Drive, Room 100A, Santa Rosa, CA 95403.

Supervisors:

Brown:____ **Rabbitt:**____ **McGuire:**____ **Carrillo:**____ **Zane:** ____

Ayes:____ **Noes:**____ **Absent:**____ **Abstain:** ____

So Ordered.

County of Sonoma
Santa Rosa, CA 95403

Date: 12/11/2012

Resolution of the Board of Supervisors of the County of Sonoma, State of California, Making and Adopting a Statement of Overriding Considerations, Adopting a Mitigation Monitoring and Reporting Program, and Approving the Watmaugh Road Bridge Replacement Project Consisting of (1) the Removal of the Existing 1929 Pony-Truss Bridge on Watmaugh Road Where It Crosses the Sonoma Creek, and (2) Replacing It With a New Multi-Span, Pre-stressed Concrete Box Girder or Concrete Slab Bridge Within the Approximate Alignment of the Existing Bridge; Supervisorial District No. 1.

Resolved, that the Board of Supervisors (“the Board”) of the County of Sonoma (“the County”) hereby finds and determines as follows:

**Section 1.
Application and Proposed Project.**

1.0 The Sonoma County Department of Transportation and Public Works (“TPW”) proposes to replace the existing 1929 Watmaugh Road Bridge where it crosses the Sonoma Creek. The project would remove the existing bridge and construct a replacement bridge within the approximate alignment of the existing bridge. The new bridge would be a two-span, pre-stressed concrete box girder or concrete slab bridge that approximately 185 feet in length. The new bridge would support a 32-foot wide roadway, consisting of two 11-foot wide travel lanes and two five-foot wide shoulders. The approach roadway width would also be widened to about 32 feet and taper until it conforms to the existing roadway at each end of the bridge. To construct the new bridge, Cast in Drilled Hole (“CIDH”) concrete piers would be drilled into the banks of the creek at the location of the abutments and at the center pier, with the number and size of the CIDH piers to be determined prior to construction, based upon the results of a geotechnical report. Prior to removal of the existing bridge, a debris-catching platform would be constructed under the bridge. The platform would be supported by the existing structure over the water and would function to prevent concrete debris from falling into the creek during removal of the existing bridge deck. The project would be constructed within one spring-summer construction season, with the exception of tree removal which may be conducted during the previous fall and winter to avoid the migratory bird nesting season. The existing bridge would be closed to traffic during construction, and traffic would be diverted onto alternate routes within the vicinity of Watmaugh Road to both the north and south, via Leveroni Road and State Highway 12/121. The maximum detour length would be approximately five (5) miles. Relocation of existing utilities may also be

needed. The foregoing components of are collectively referred to hereinafter as the “Proposed Project.” The Proposed Project site is designated as a Scenic Landscape Unit in the Sonoma County 2020 General Plan Open Space and Resource Conservation Element. The Sonoma County Official Zoning Database places the bridge into two combining districts: the bridge itself is within the Historic Bridge Thematic District (HD) and Sonoma Creek lies within the F2 Floodplain. Adjacent zoning districts include Biotic Resources (BR), Valley Oak Habitat (VOH), and Scenic Resource (SR) combining districts; Supervisorial District No. 1.

Section 2. Procedural History.

2.0 In the fall of 1998, TPW staff presented a prior version of the project to the Landmarks Commission to seismically retrofit the existing Watmaugh Road Bridge (the “1998 Project”). The 1998 Project was part of California’s statewide program to replace or retrofit bridges to comply with seismic safety standards. The 1998 Project was primarily terminated due to a finding by Caltrans that the bridge’s foundations were inadequate and undermined by scour in the creek. The discovery of other structural issues and the unavailability of federal funding to repair these structural deficiencies lent further support for abandoning the 1998 Project. The additional structural deficiencies, coupled with the narrow, inadequate bridge deck, the poor alignment of the existing bridge, poor sight distance of the existing bridge, and the fact that the Watmaugh Road Bridge was only eligible to receive federal bridge replacement funding, led TPW staff to begin to pursue the Proposed Project to replace the existing bridge in 2010.

2.1 On May 9, 2010, at the request of Caltrans, County staff held an informational meeting at the Sonoma Library to (i) present the concept for the Proposed Project’s plan to remove and replace the existing bridge and (ii) solicit input from the public. In addition, TPW staff presented and discussed the Proposed Project at three regularly scheduled meetings of the Sonoma County Landmarks Commission held on September 7, 2010, October 5, 2010, and February 1, 2011, respectively, at which time the Landmarks Commission and the general public provided input on the Proposed Project and possible alternatives. On June 7, 2011, TPW staff brought an additional informational item before the Landmarks Commission that proposed a bypass bridge just downstream from the existing 1929 bridge as an alternative to the Proposed Project.

2.2 The plans presented at each of the Landmarks Commission meetings met with opposition from the general public and members of the Commission. In response to the input received at those meetings, TPW staff redesigned the Proposed Project to preserve the existing truss elements found on the existing bridge and incorporate them into the new bridge design as non-structural components. This revised design, along with preserving the existing alignment, reduces visual impacts to the existing bridge and lessens impacts to the existing bridge’s Landmark status while still satisfying the

principal objective of the Proposed Project – to meet the public transportation needs along Watmaugh Road.

2.3 On July 24, 2012, the Landmarks Commission formally considered the Proposed Project and recommended that the Board of Supervisors deny the replacement project based on (i) potential impacts to the historic resource and (ii) the Landmark Commission’s conclusion that the Proposed Project would conflict with the purposes of the HD zoning to preserve the historic character of the bridge. The Landmarks Commission further recommended that the alternative alignment be similarly rejected due to impacts to the historic resource and renewed their request that rehabilitation of the bridge be evaluated further.

2.4 On July 31, 2012, in accordance with the procedures for Landmarks Commission review of proposed work on historic bridges established by Resolution No 98-0046, the Commission’s recommendations and the response by TPW staff was submitted to the Board of Supervisors (“Board”) at a duly noticed public meeting. After considering the testimony presented by the Landmarks Commission, TPW staff, and the general public, the Board: (i) approved a contract for technical studies and project design to allow the completion of an environmental review of the Proposed Project’s potential environmental impacts, and (ii) directed County staff to initiate the environmental analysis for the Proposed Project required by the California Environmental Act (“CEQA”) and the State CEQA Guidelines (including an evaluation of alternatives).

2.5 Based on the Board’s action, TPW staff submitted the Proposed Project to the Sonoma County Permit and Resource Management Department (“PRMD”) for environmental review. PRMD staff prepared an initial environmental study (“Initial Study”) and submitted the Proposed Project to the Sonoma County Environmental Committee (“ERC”), as required by Sonoma County Code Section 23A-13. On August 7, 2012, the ERC reviewed the Initial Study and determined that a project-level environmental impact report (“EIR”) was required for the Proposed Project. The ERC further determined the scope of and directed the preparation of an EIR to assesses potentially significant impacts associated with the Proposed Project as identified by the Initial Study.

2.6 The County utilized its own staff to prepare the EIR for the Proposed Project but contracted with various experts to prepare the technical studies necessary to complete the EIR, as permitted by CEQA Guidelines Section 15084. PRMD staff sent a notice of preparation (“NOP”) for the required EIR to the Office of Planning and Research, all responsible and trustee agencies, and all interested persons on August 7, 2012, and provided a 30-day response period commencing ending on September 6, 2012, for those parties to submit comments regarding the specific scope and content of the EIR. The County received four (4) responses to the NOP, all of which were carefully considered in determining the scope and content of the EIR for the Proposed Project.

2.7 On September 18, 2012, the Board, in accordance with the provisions of Section 23A-23 to the Sonoma County Code, adopted Resolution No. 12-0448 taking

original jurisdiction over the EIR for the Proposed Project to expedite the review of the EIR to ensure that the County does not lose the federal funding for the Proposed Project.

2.8 A draft EIR (“the Draft EIR”) was completed for the Proposed Project and a Notice of Completion filed with the Office of Planning and Research on October 1, 2012. The Draft EIR was made available for public and agency review and comment for a 45-day comment period commencing October 1, 2012, and ending on November 14, 2012.

2.9 The Board conducted a duly noticed public hearing on the Draft EIR on October 16, 2012. At the hearing, the Board heard and received all relevant oral and written testimony and evidence presented or filed regarding the Draft EIR. All interested persons were given the opportunity to hear and be heard. At the conclusion of public testimony at the hearing, the Board closed the hearing, gave preliminary comments on the Draft EIR, and directed PRMD staff to prepare responses to all comments received on the Draft EIR both at the October 16, 2012 hearing and through the end of the 45-day public comment period on November 14, 2012.

2.10 The County received 17 written and oral comments from public agencies and the general public during the 45-day public comment period. The County prepared written responses to all comments received on the Draft EIR and made revisions to the Draft EIR, as appropriate, in response to those comments. The written responses are set forth in a final EIR consisting of the Draft EIR and a Response to Comments Document dated December 2012 (collectively “the Final EIR”). The Response to Comments Document was completed for the Proposed Project on November 28, 2012, and made available to the public and provided to all responsible and commenting agencies on November 28, 2012. In addition, the County mailed a proposed written response to each public agency on comments made by that agency at least 10 days prior to certifying the EIR as required by CEQA Guidelines Section 15088(b).

2.11 Prior to the Board hearing on the Final EIR, PRMD and TPW staff prepared and distributed a staff report to the Board on the Final EIR and the Proposed Project. The staff report described the Proposed Project and the Final EIR, analyzed all Project issues, and recommended that the Board certify the Final EIR, adopt a statement of overriding considerations, and approval of the Proposed Project.

2.12 The Board conducted a duly noticed hearing on the Final EIR and the merits of the Proposed Project on December 4, 2012. At the hearing, the Board heard and received all relevant oral and written testimony and evidence presented or filed regarding the Final EIR and the Proposed Project. All interested persons were given the opportunity to hear and be heard. Three additional comment letters were submitted and eight members of the public spoke on the merits on the project at the hearing. The Board reviewed this additional material, both written and oral, and determined that none of these additional comments raised new substantive issues or concerns that were not previously addressed in the EIR or past public meetings. At the conclusion of public testimony, the Board closed the hearing, considered and discussed the adequacy of the

Final EIR and the merits of the Proposed Project, and, on a 5-0 straw vote, determined to certify the Final EIR, adopt a statement of overriding considerations, and approve the Proposed Project. County Counsel and PRMD staff were directed to return to the Board with a resolution reflecting the consideration and actions of the Board.

2.13 The Board has had an opportunity to review this resolution and hereby finds that it accurately sets forth the intentions of the Board regarding the Final EIR.

2.14 The Board's decisions herein are based upon the testimony and evidence presented to the County orally or in writing prior to the close of the Board hearing on December 4, 2012 ("the record of these proceedings"). Any information submitted after the close of the Board hearing was deemed late and not considered by the Board.

Section 3. CEQA Compliance.

3.0 The Board makes the following specific findings with respect to the Final EIR:

(a) During the preparation of the Draft EIR, it was determined that certain environmental impacts would not occur as a result of the Proposed Project or clearly would not rise to a level of significance. These determinations are briefly stated either in the Draft EIR or in the Initial Study that is included as Appendix D to the Draft EIR and summarized in Section 4.0 of the Draft EIR. The Board finds that these determinations are supported by substantial evidence and that there is no substantial evidence in the record that these determinations were erroneous. The Board further finds that there is no substantial evidence in the record that any environmental impact that might arguably be anticipated to occur as a result of the Proposed Project has not been adequately examined in the Final EIR.

(b) The Final EIR discloses that the Proposed Project poses the following environmental impacts which are less-than-significant and do not require mitigation: Impact 3e (Initial Study): Create objectionable odors affecting a substantial number of people; Impact 6c (Initial Study): Locate structure(s) on a geologic unit or soil that is unstable, or that would become unstable as a result of the project; Impact 6d (Initial Study): Locate structure(s) on expansive soil creating substantial risks to life or property; Impact 7a (Initial Study): Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environmental; Impact 9c (Initial Study): Substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site; Impact 9d (Initial Study): Substantially alter the existing drainage pattern of the site or area in a manner that would result in flooding on- or off-site; Impact 9h (Initial Study): Place within a 100-year flood hazard area structures which would impede or redirect flood flows; Impact 9i (Initial Study): Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; Impact 12a (Initial Study): Expose persons to or generate noise levels in excess of

standards established in the local general plan or noise ordinance, or applicable standards of other agencies; Impact 14a(ii) (Initial Study): Result in substantial adverse physical impacts to the response times or other performance objectives for police services. These determinations are discussed in detail either in the Draft EIR or in the Initial Study that is included as Appendix D to the Draft EIR and summarized in Section 4.0 of the Draft EIR. The Board concurs with the Final EIR's "less than significant" findings for the preceding environmental impacts of the Proposed Project and determines that the preceding environmental impacts of the Proposed Project would clearly have no significant effect on the environment.

(c) The Final EIR discloses that the Proposed Project poses certain significant or potentially significant adverse environmental impacts that can be mitigated to less than significant levels. These impacts are fully and accurately summarized in Exhibit "A" to this resolution, attached hereto and incorporated herein by this reference. The Board finds that changes or alterations have been required in, or incorporated into, the Proposed Project through the conditions of approval imposed herein which will, in fact, mitigate these impacts to less than significant levels as set forth in Exhibit "A" to this resolution. The Board therefore determines that the significant adverse environmental impacts of the Proposed Project summarized in Exhibit "A" to this resolution have been eliminated or reduced to a point where they would clearly have no significant effect on the environment.

(d) The Final EIR discloses that the Proposed Project poses certain significant or potentially significant adverse environmental impacts that, even after the inclusion of feasible mitigation measures, may not, or cannot, be avoided if the Proposed Project is approved. These impacts, which relate to impact on cultural resources due to the removal and replacement of the existing bridge that is designated as historically significant by the County (Cultural Resources Impact No. 1) and the impact to the HD zoning policy from the loss of the historical bridge (Land Use and Planning Impact No. 1), are fully and accurately summarized in Exhibit "B" to this resolution, attached hereto and incorporated herein by this reference.

(e) As to the significant adverse environmental impacts of the Proposed Project identified in the Final EIR and this resolution which are not avoided or substantially lessened to a point less than significant, the Board finds that specific economic, social, technological, or other considerations make additional mitigation of these impacts infeasible, in that all feasible mitigation measures have been incorporated into the Proposed Project, and that the project alternatives are either infeasible or do not avoid these significant adverse impacts. The Board further finds that it has balanced the benefits of the Proposed Project against its unavoidable environmental risks and determines that the benefits of the Proposed Project outweigh the unavoidable adverse environmental effects. The Board further determines that the unavoidable adverse environmental effects of the Proposed Project are acceptable, that there are overriding considerations which support the Board's approval of the Proposed Project, and that these considerations are identified in Exhibit "C" to this resolution, attached hereto and incorporated herein by this reference ("the Statement of Overriding Considerations").

(f) The Final EIR evaluates a range of reasonable alternatives. These alternatives are fully and accurately summarized in Exhibit “D” to this resolution, attached hereto and incorporated herein by this reference. These alternatives, however, are infeasible for reasons set forth in Exhibit “D” to this resolution.

3.1 The Board has considered the comments and arguments received in writing and at the Board hearings regarding the Proposed Project’s potential environmental impacts and the feasibility of imposed mitigation measures, and makes the following specific findings with respect thereto:

(a) The Final EIR evaluates a reasonable range of alternatives sufficient in both number and detail to provide for informed decision-making, and the suggestions of several commenters that the Board failed to implement a feasible alternative are without merit. The EIR considered eight alternatives, including three rehabilitation scenarios (Alternatives 3, 5 and 6) (as suggested by several commenters) which were studied in depth, and one retrofit alternative that was not carried forward for further study for the reasons set forth in Section 7.4 of the EIR. The EIR also considered an alternative to construct a new parallel bridge upstream of the existing Watmaugh Bridge and leave the existing bridge in place that was not carried forward for further study for the reasons set forth in Section 7.4 of the EIR, a No Project Alternative (Alternative 1), a Downstream Parallel Bridge Alternative that left the existing bridge in place (Alternative 2), and a Replacement of the Existing Bridge with a Steel Arch Bridge (Alternative 4). Each of these alternatives was studied because of their ability to reduce or eliminate some or all of the significant effects associated with the proposed project. Contrary to the assertions of several commenters, none of these Alternatives were found to be feasible or environmentally superior to the proposed project. As more fully discussed in the EIR, these determinations are based on substantial evidence in the record. The seismic retrofit alternative was rejected because it would not meet the majority of the project objectives to address structural and safety deficiencies other than seismic safety. The upstream parallel bridge alternative, although it would meet all of the project objectives, was also rejected because it would require the removal of residences, result in elevated noise levels to a remaining residence, and require additional right-of-way, resulting in greater significant and unavoidable impacts on land use and noise than the Proposed Project and eliminated from further study. Alternative 1 (No Project Alternative), although environmentally superior to the project, would meet none of the project objectives and would do nothing to address the structural safety issues with the existing bridge, thereby exposing people and property to risk of injury. Alternative 2 (Construct a Downstream Parallel Bridge and Leave Existing Bridge In Place) meets all of the project objectives, but does so with significant and unavoidable impacts to aesthetics and riparian habitat that would not be introduced by the Proposed Project. Alternative 3 (Rehabilitate Existing Bridge) meets the majority of the project objectives but would result in similar impacts to aesthetics as the proposed project; moreover, while Alternative 3 would avoid the complete loss the historic resource associated with the proposed project, the extensive alterations to rehabilitate the bridge would result in major changes to the integrity of materials, workmanship, and feeling of the bridge that would

be equal to the impacts on historic resource from the proposed project. Alternative 4 (Replace Existing Bridge with Steel Arch Bridge) would avoid none of the significant impacts associated with the proposed project. Alternative 5 (Rehabilitate Existing Bridge and Add a Parallel Bicycle/Pedestrian Bridge Downstream) meets the majority of the project objectives but does not avoid the significant impacts to the historic bridge and would be economically infeasible. Finally, Alternative 6 (Rehabilitate Existing Bridge and Add a One-Way Bridge for Traffic and Bicycle/Pedestrians Downstream) would require the acquisition of additional right-of-way from adjacent parcels, would substantially alter the appearance and characteristics of the historic resource, and would result in a substantial adverse impact to the historic integrity of the bridge. Thus, Alternative 6 would not reduce the significant unavoidable impacts to cultural resources and would introduce new impacts to visual and biotic resources; in addition, this alternative is found to be economically infeasible for the same reasons as Alternative 5. Commenters offered no evidence to controvert the findings in the alternatives section of the Draft EIR other than their summary conclusions that a rehabilitation/retrofit alternative would be feasible and environmentally superior to the proposed project. For the reasons set forth above and discussed more fully in the Final EIR, the Board finds that the EIR adequately considered a reasonable range of alternatives.

(b) The Final EIR include a complete and thorough analysis of the Proposed Project's impact on historical resources in Section 5B, Cultural Resources. The analysis openly acknowledges the potential adverse change the project may cause to the significance of the Watmaugh Bridge and identifies feasible mitigation – including Cultural Resource Mitigation Measure C-1 (requiring the production of a photo archive of the Watmaugh Bridge) and Aesthetics Mitigation Measure A-2 (requiring the design of the new bridge to include historically accurate elements and incorporate visually prominent elements of the existing bridge to the extent feasible) – to reduce the impact resulting from the removal of this local historic resource. The County will incorporate this mitigation into the project. However, even with the implementation of the identified mitigation, the Draft EIR found that the impact to the historic Watmaugh Bridge would remain significant and unavoidable, a fact the Draft EIR openly discloses. For a more complete analysis of the impacts to this historic resource, please see the discussion set forth in Sections 5B of the Draft EIR.

(c) The Final EIR relied on experts in the field of architectural history to determine that the Watmaugh Bridge is not eligible for listing in the National Register. The County retained Tom Origer and Associates to prepare the cultural resource documents for use in the DEIR. Tom Origer and Associates are imminently qualified to prepare reports that evaluate historical architecture, including eligibility determinations for buildings and structures of all types, pursuant to the California Environmental Quality Act and the National Historic Preservation Act. The commenters offered no evidence to contradict the expert testimony provided by Tom Origer and Associates, but rather summarily asserted that the County should have another expert make a determination of the current criteria for historic eligibility. CEQA imposes no such requirement on the lead agency. Credible expert testimony, when uncontradicted, constitutes substantial evidence in support of the conclusion asserted.

(d) The Proposed Project is designed to minimize its visual impacts. The proposed replacement bridge design will include the truss elements found on the existing bridge on both sides of the proposed bridge. In addition, the existing guardrails, soffits, and other visually prominent elements of the existing bridge will be incorporated into the proposed bridge to the degree feasible without compromising the structural integrity of project. Contrary to comments received, the Aesthetic Section (Section 5A) of the EIR includes a detailed description and analysis of the visual setting. It includes a description of the existing landforms, land uses, vegetation types as well as viewing distances and durations. Consistent with the County of Sonoma Visual Assessment Guidelines, visual impacts were analyzed by considering public viewing points that included views of the bridge along Watmaugh Road and were characterized as linear views up to the bridge. These views will not include longitudinal views of the bridge deck and therefore the bridge profile (which will change with replacement of the existing bridge) will not be seen. The EIR utilized this detailed analysis of the Proposed Project, coupled with the incorporation of mitigation, to conclude that the visual impact from the Proposed project would be at a level that is less than significant.

(e) Opponents of the Proposed Project have not provided substantial evidence to controvert the engineering analysis and conclusions relied on by TPW staff and Caltrans in connection with the development and environmental review of the Proposed Project. While a disagreement exists between private engineers hired by the commenter and by TPW staff, the disagreement is primarily over the scope of what is needed to adequately address the structural deficiencies and safety concerns with the existing Watmaugh Road Bridge. On November 7, 2012, Caltrans independently opined that the existing bridge is considered to be functionally obsolete, structurally deficient, and scour critical. The Caltrans letter further stated that the existing bridge has a sufficiency rating of 4/100, making it is one of the worst rated bridges in California.

(f) The Proposed Project will not increase traffic or speeds on the Watmaugh Bridge. The speed limit through the project area is currently posted at 35 MPH and no increase in that speed limit is planned as part of this project. Local law enforcement is responsible for controlling traffic at safe speeds and is outside of CEQA. Additional speed reduction measures, such as speed bumps, could be used at the project site in conjunction with the existing signage, at DTPW traffic engineer's discretion; however, the project is not expected to result in increased traffic speeds or environmental impacts related to increase vehicle speeds. The Board finds that the concerns raised by several commenters that certain motorists may exceed the posted speed limit is not a physical impact on the environment properly attributed to the proposed project. The Board further notes that control of such behavior is properly dealt with through law enforcement, not by impermissibly imposing mitigation on the proposed project. Traffic on the bridge will be similarly unaffected. Although the new bridge will not be load limited, any increase in large trucks is anticipated to be very small. The project is not a roadway capacity increasing project but, rather, a safety improvement project (i.e., no new travel lanes are added). The new bridge will function as the current bridge does, and trucks will continue to use the new bridge as they do the existing bridge. The new bridge

will have shoulders and improved site distance, and will be safer than the existing bridge for all travelling across it, including trucks. But Watmaugh Road is not a primary truck route, and would not be expected to change as a result of replacing the bridge.

(g) The procedure the County followed in the preparation and review of the EIR fully complied with CEQA and all applicable provisions of state and local law. The comments received on the Draft EIR, both written and oral, raise no substantive deficiencies with the process followed by the County. As described in detail in Section 2 of this Resolution, the County submitted the proposed project to its Environmental Review Committee (ERC) on August 7, 2012, as required by Sonoma County Code Section 23A- 13. The ERC determined the scope of and directed the preparation of the Draft EIR to assesses potentially significant impact associated with the project as identified by the Initial Study. On August 7, 2012, the County prepared and sent a Notice of Preparation (NOP) of the EIR to responsible, trustee, and other interested agencies and persons in accordance with Guidelines Section 15082(a). The NOP included a copy of the Initial Study and provided 30 days for persons to submit comments on the scope of the EIR. The County received four comment letters in response to the NOP which are included in Appendix C to the Draft EIR. The County completed the Draft EIR, together with those certain technical appendices (the “Appendices”), on September 26, 2012. The County circulated the Draft EIR and the Appendices to the public and other interested persons between September 26, 2012, and November 14, 2012, for a 45-day public comment period as required by Guidelines Sections 15087(c) and 15105. The Board of Supervisors held a duly noticed public hearing on October 16, 2012, at which times it received oral and documentary evidence from the public regarding the Draft EIR. The County completed the Response to Comments Document on November 28, 2012, and released it to the public. There is no specific requirement that a lead agency provide an opportunity for members of the public to review the Final EIR before the project is approved, but the County provided such an opportunity nonetheless at the December 4, 2012 Board of Supervisors hearing on the merits of the project and the Final EIR. (Cal. Code Regs., title 14, § 15089(b).) Moreover, there is no rule in CEQA specifying the time frame in which an EIR should be prepared other than the general provisions set forth in CEQA Guidelines Section 15004.

(h) The Proposed Project’s potential impacts to biological resources, hydrology/water quality, noise, air quality, geology/soils, hazards and hazardous materials, and transportation were fully assessed and discussed in the Initial Study, which is attached to the Draft EIR as Appendix D and expressly forms a part of the Draft EIR, and summarized in Section 4 of the Draft EIR. The assessments set forth in the Initial Study are based on technical studies, expert opinion, and staff experience with similar projects. As permitted by CEQA, the County used the Initial Study to help define the scope of the analysis in the Draft EIR. (Cal. Code Regs., title 14, §§ 15006(d), 15063(a), 15143.) Effects determined in the Initial Study to be less than significant, either standing alone or with the incorporation of routine mitigation measures imposed on all similar projects, were not brought forward for further discussion in the Draft EIR, nor does CEQA require that an EIR discuss such effects. CEQA Guidelines Section 15143 expressly provides that “[e]ffects dismissed in an Initial Study as clearly insignificant and

unlikely to occur need not be discussed in the EIR.” The Initial Study’s determination of impacts that are clearly insignificant and need not be discussed in the Draft EIR is dispositive, unless the lead agency later received inconsistent information. (Cal. Code Regs., title 14, § 15143.) No such inconsistent information has been received with respect to the Draft EIR, and commenter offers no evidence, substantial or otherwise, outside her sweeping statement.

In addition, the Initial Study clearly demonstrates that with the implementation of routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects these impacts certain impacts to air quality, biological resources, cultural resources, geology/soils, hazards/hazardous materials, hydrology/water quality, noise, and transportation/traffic will be less than significant. These determinations are based on biological assessments, expert opinions, consultation with the California Department of Fish and Game (DFG), and staff’s experience with similar projects. The mitigation set forth in the Initial Study is imposed as a matter of course on all similar projects and consists of BMPs and standard construction conditions that can, with certainty, reduce the potential impacts in question to a less than significant level.

The Traffic Technical Memo prepared for the proposed project, which was utilized to complete the traffic analysis presented in the Initial Study, fully analyzed the potential impacts the diverted trips from the project would have on nearby roadways. The Traffic Technical Memo shows that project-related construction detours will add an additional five vehicle trips per minute during the PM peak hour (the highest volume hour). These trips could take a number of additional routes during the period that Watmaugh Road is closed, but even if all of these additional vehicles traveled through either SR 12/121 or SR 121/116, it would not substantially change the LOS nor add substantial queue lengths to the subject intersection. Thus, the temporary diversion of project traffic during construction would not result in a significant adverse impact on either SR 12/121 or SR 121/116 as suggested by the commenter. To further reduce any impact, the Initial Study identifies appropriate mitigation to detour traffic to Leveroni Road until construction of the replacement bridge is completed; and if lengthy delays are anticipated, the Initial Study requires that signs be placed at all entrances to the project site and on major intersecting roads, including Leveroni Road to notify motorists that traffic will be subject to delay, allowing them time to alter their routes, thereby further reducing any possible congestion. The Final EIR found that with the incorporation of the identified mitigation, the temporary construction impacts to traffic would be less than significant. And even though the mitigation includes the same types of elements that would be found in a Transportation Management Plan (TMP), the County, in response to a comment received from Caltrans on the Draft EIR, included a mitigation measure requiring a TMP as an additional mitigation measure to further reduce potential impacts to nearby roadways during project construction.

(i) The Final EIR provides substantial evidence to support the cumulative impacts analysis. The information provided in Table 5C-2 reflects a number of projects already completed, and other projects currently underway in the design and

environmental phase, for which funding has been provided. The information in 5C.4 of the EIR is up-to-date and consistent with the project plans and goals of TPW and is in no way speculative, and, in fact, is readily verifiable. More importantly, the EIR does not improperly attempt to avoid fully analyzing the potential environmental impacts associated with the proposed project by presenting a “piecemeal”, speculative, and inaccurate picture of probable future projects relating to demolition” as suggested by some commenters. To the contrary, the information set forth in the discussion of cumulative impacts in Section 5C.4 of the DEIR is both accurate and concrete based on currently available information. The fact that opponents disagree with the County’s proposed plans for various other historic bridges and believe such approaches will lead to “demolition, either by the wrecking ball or neglect,” does not render these future projects any less reasonably foreseeable.

(j) The comments and arguments submitted to the Board, and the additional conditions of approval added by the Board, relate to issues and environmental impacts that have already been evaluated in the Final EIR, and there is no significant new information that requires recirculation of the Final EIR, or otherwise requires further evaluation under CEQA. The information submitted to the Board does not show that there is a new or substantially more severe significant environmental impact, or that a considerably different alternative or mitigation measure would lessen the significant environmental impacts of the Proposed Project.

3.2 To ensure that the mitigation measures and project revisions identified in the Final EIR are implemented, CEQA and the State CEQA Guidelines require the Board to adopt a program for monitoring or reporting on the revisions which it has required in the Proposed Project and the measures it has imposed to mitigate or avoid significant environmental effects. A mitigation monitoring and reporting program for the Proposed Project (“the Mitigation Monitoring and Reporting Program”) is set forth in Exhibit “E” to this resolution, attached hereto and incorporated herein by this reference. The Mitigation Monitoring and Reporting Program will be implemented in accordance with all applicable requirements of CEQA and the State CEQA Guidelines.

Section 4. Evidence in the Record.

4.0 The findings and determinations set forth in this resolution are based upon the record of these proceedings. References to specific statutes, ordinances, regulations, reports, or documents in a finding or determination are not intended to identify those sources as the exclusive bases for the finding or determination.

Now, Therefore, Be it Further Resolved, that, based on the foregoing findings and determinations and the record of these proceedings, the Board hereby declares and orders as follows:

1. The foregoing findings and determinations are true and correct, are supported by substantial evidence in the record, and are adopted as hereinabove set forth.

2. The Final EIR is certified in Resolution No. 12-_____. PRMD is directed to file a Notice of Determination in accordance with CEQA and the State CEQA Guidelines.

3. The Statement of Overriding Considerations is adopted as made in Section 3.0(e) of this resolution and Exhibit "C" to this resolution.

4. The Mitigation Monitoring Program, as set forth in Exhibit "E" to this resolution, is adopted. PRMD staff is directed to undertake monitoring in accordance with the Mitigation Monitoring Program to ensure that required mitigation measures and project revisions are complied with during project implementation.

5. The Proposed Project as submitted is approved and TPW staff is directed to proceed with the removal and replacement of the Watmaugh Road Bridge.

6. The Director of Transportation and Public Works is authorized to proceed with the engineering design firm to develop final design and engineering specs for the new bridge and to prepare a formal bid package to enable the County to solicit bids to proceed with the construction of the new Watmaugh Road Bridge, and to take all other actions reasonably necessary to implement the Watmaugh Bridge Replacement Project.

7. The Clerk of the Board is designated as the custodian of the documents and other materials that constitute the record of the proceedings upon which the Board's decisions herein are based. These documents may be found at the office of the Clerk of the Board of Supervisors, 575 Administration Drive, Room 100A, Santa Rosa, CA 95403.

Supervisors:

Brown:____ **Rabbitt:**____ **McGuire:**____ **Carrillo:**____ **Zane:** ____

Ayes: 4 **Noes:**____ **Absent:** 1 **Abstain:** ____

So Ordered.

Attachments will include:

- Exhibit A – Potentially Significant Impacts That Can Be Mitigated To A Less-Than-Significant Level
- Exhibit B – Significant Impacts That Cannot Be Fully Mitigated
- Exhibit C – Statement of Overriding Considerations
- Exhibit D – Alternatives
- Exhibit E – Mitigation Monitoring Plan

EXHIBIT “A”
**POTENTIALLY SIGNIFICANT IMPACTS THAT CAN BE MITIGATED TO A LESS-
THAN-SIGNIFICANT IMPACT**

The Final EIR identifies the following significant or potentially significant adverse environmental impacts of the Proposed Project that can be mitigated to a less-than-significant level:

AESTHETICS

Aesthetics Impact No. 1: Have a Substantial Adverse Effect on a Scenic Vista

The proposed bridge replacement would require the removal of existing mature trees that would temporally leave open bare areas and, therefore, impact existing views from the roadway. The impact to motorists and nearby residences could potentially be a significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that the implementation of Aesthetics Mitigation Measure No. 1 of the Final EIR would reduce this impact to a less-than-significant level. Aesthetics Mitigation Measure No. 1 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects of removal of existing mature trees to both motorists and nearby residences.

Rationale

The removal of existing mature trees would temporally leave open bare areas, potential significantly impacting motorists and nearby residences. Aesthetics Mitigation Measure No. 1 requires the County to plant and maintain native trees and shrubs as part of project implementation, which will reduce the impacts from the removal of the mature trees to less than significant.

Aesthetics Impact No. 2: Have a Substantial Adverse Effect on Visual Quality of Surrounding Community

The Proposed Project is located in a rural and agricultural setting, and the replacement of the existing bridge with modern materials could adversely impact the feel and overall visual quality of the surrounding area.

Finding

Based upon the Final EIR and the entire record, the Board finds that the implementation of Aesthetics Mitigation Measure A-2 of the Final EIR would reduce this impact to a less-than-significant level. Aesthetics Mitigation Measure A-2 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the

Proposed Project which mitigate or avoid the significant effects of the use of modern material in the replacement bridge on motorists and residents in the vicinity of the Watmaugh Bridge.

Rationale

The proposed bridge replacement design includes the reuse of the trusses found on the existing bridge as project design feature on the proposed new bridge. To further reduce any impacts from the new bridge, Aesthetics Mitigation Measure A-2 requires that the Proposed Project design incorporate new period correct lattice rails, and other visually prominent elements of the existing bridge to the degree feasible without compromising the structural integrity of project. Implementation of Aesthetics Mitigation Measure A-2 will reduce the impacts from the use of new materials to less than significant.

AIR QUALITY

Impact 3c (Initial Study): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard.

Construction of the Proposed Project could result in short-term and temporary emissions due to the use of construction equipment that could be significant both at the project level and cumulatively.

Finding

Based upon the Final EIR and the entire record, the Board finds that that the implementation of Air Quality Mitigation Measure No. 1 and the Best Management Practices (BMPs) identified in the Initial Study would reduce this impact to a less-than-significant level. Air Quality Mitigation Measure No. 1 has been incorporated into the Conditions of Approval, and the County's existing development standards require implementation of the BMPs. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects of air pollution emissions due to construction activity.

Rationale

The Bay Area is a non-attainment area for ozone and PM₁₀ (fine particulate matter). The Proposed Project would not have a cumulative effect on ozone because it would not generate traffic which would result in new emissions of ozone precursors (hydrocarbons and NO_x). The project would have no long-term effect on PM₁₀ because all surfaces would be paved or landscaped, and dust generation would be insignificant. However, there could be a significant short-term emission of dust (which would include PM₁₀) during construction. These emissions could be potentially significant at the project level, and would also contribute to a cumulative impact. This impact could be reduced to less than significant by including standard dust control measures as described in Air Quality Mitigation Measure No. 1 in the Initial Study. This

mitigation requires the implementation of BMPs that will reduce any potential impact of construction emissions to less than significant.

Impact 3d (Initial Study): Expose sensitive receptors to substantial pollutant concentrations.

Construction of the Proposed Project could result in short-term and temporary dust emissions that could adversely impact nearby residents.

Finding

Based upon the Final EIR and the entire record, the Board finds that the implementation of Air Quality Mitigation Measure No. 1 and the Best Management Practices (BMPs) identified in the Initial Study would reduce this impact to a less-than-significant level. Air Quality Mitigation Measure No. 1 has been incorporated into the Conditions of Approval, and the County's existing development standards require implementation of the BMPs. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects of air pollution emissions due to construction activity.

Rationale

The Proposed Project will not result in any long-term increase in emissions, but during construction there could be a significant short-term emission of dust which could adversely impact affect nearby residents. Dust emissions can be reduced to less than significant by including standard dust control measures as described in Air Quality Mitigation Measure No. 1 in the Initial Study. This mitigation requires the implementation of BMPs that will reduce any potential impact of construction emissions to less than significant.

BIOLOGICAL RESOURCES

Biological Resources Impact 4a (Initial Study): Have a substantial adverse effect, either directly or through habitat modification, on an species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations of the CDFG or USFWS.

Within the vicinity of the proposed project, Sonoma Creek is known to provide habitat for the federally listed threatened Central California Coastal Steelhead. The project site itself provides high quality spawning habitat and nursery habitat, as well as a migration corridor for this species. In addition, California Fresh Water Shrimp, a state and federally listed endangered species, were also observed in the study area that could be affected by the proposed project. Replacement of the Watmaugh Road Bridge could potentially cause significant adverse impacts to steelhead and California Fresh Water Shrimp and their habitats

Finding

Based upon the Final EIR and the entire record, the Board finds that Implementation of Biological Resources Mitigation Measure No. 1 identified in the Initial Study would reduce impact to a less-than-significant level. Biological Resources Mitigation Measure No. 1 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects of loss or disturbance of a special-status plant population.

Rationale

Within the vicinity of the proposed project, Sonoma Creek is known to provide habitat for federally listed threatened, Central California Coastal Steelhead. The Watmaugh Road Bridge area of Sonoma Creek provides high quality spawning habitat, nursery habitat as well as a migration corridor for this species. In addition, within the vicinity of the proposed project, county staff has conducted surveys for California Freshwater Shrimp, (CFWS), which is a state and federally listed endangered species. The goals of the surveys included 1) establishing presence or absence of CFWS in the area 2) assess habitat quality and 3) assess the types of habitat within the area of the project. CFWS were observed in the creek and habitat features such as underwater root masses and bank overhangs were also observed in the study area that could be affected by the proposed project. The bridge structure itself shows signs of providing night roosting habitat for bats, several of which are Species of Special Concern. However, the bridge only appears to provide night roosting habitat, and the temporary loss of the bridge during construction would not be considered a significant impact to sensitive bat species. The western pond turtle, (WPT), a California Species of Special Concern, are also found on Sonoma Creek. While western pond turtles have not been observed on site, the upper banks of Sonoma Creek could potentially be used for a temporary upland refugium. The creek channel could also be used as a migratory corridor.

Project work is limited to the upper banks of the creek. Fencing along the work limits will prevent direct impacts to turtles that could be using the lower banks or creek channel as a migratory corridor. A preconstruction survey will be conducted for western pond turtle (see the below mitigation).

As discussed previously in the Construction Methods Section, in order to construct the new bridge, work within the creek may include the placement of a temporary gravel workpad under the existing bridge. The placement of the workpad would require that water within the low-flow channel going through the worksite be captured and conveyed in a pipe via installation of gravel dams. In addition, temporary access roads within the creek banks will be required. All of these activities may potentially have a significant impact on steelhead, WPT and CFWS and their habitats.

Biological Resources Mitigation Measure No. 1 identifies routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. Based on the Initial Study, the biological assessments prepared in connection with the preparation of the Initial Study, expert opinions, consultation with the California Department of Fish and Game (DFG), and County staff's experience with similar projects, the Board finds that with incorporation of

Biological Resources Mitigation Measure No. 1, the potential impacts on steelhead, WPT, and DFWS and their habitats will be reduced to less than significant levels.

Impact 4b (Initial Study): The Project may (1) have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, (2) release the plant pathogen *Phytophthora ramorum* (aka Sudden Oak Death or SOD), and (3) cause the removal of trees to create a clear off-site staging areas.

Sonoma Creek is a designated “flatland” riparian corridor in the Sonoma County General Plan with a 100’ streamside conservation area on both sides of the creek. Tree removal associated with construction and implementation of the Proposed Project could potentially impact riparian habitat along Sonoma Creek, release the plant pathogen *Phytophthora ramorum* (aka Sudden Oak Death or SOD), and result in the removal of trees to create clear off-site staging areas for equipment and materials during construction.

Finding

Based upon the Final EIR and the entire record, the Board finds that Implementation of Biological Resources Mitigation Measure N. 2, Biological Resources Mitigation Measure No. 3, and Biological Resources Mitigation Measure No. 4 identified in the Initial would reduce the potential impact to riparian habitat to a less-than-significant level. These mitigation measures have been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects to riparian habitat.

Rationale

Sonoma Creek is a designated “flatland” riparian corridor in the Sonoma County General Plan with a 100-foot streamside conservation area on both sides of the creek. Removal of vegetation must comply with General Plan Policy OSRC-8e, which prohibits, except as otherwise allowed by Policy OSRC-8d, grading, vegetation removal, agricultural cultivation, structures, roads, utility lines, and parking lots within any streamside conservation area. Policy OSRC-8e permits an exception to this prohibition if the use in question involves the minor expansion of an existing structure, as is the case here, where it is demonstrated that the expansion will be accomplished with minimum damage to riparian function.

The project will require the removal of riparian vegetation for the existing bridge and construction of the new bridge. The Initial Study identifies routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects and are designed to ensure project consistency with Sonoma County General Plan policies for designated riparian corridors. Since the General Plan defines riparian corridors as areas along streams with native vegetation, the non-native acacia trees will be excluded from protective or compensatory mitigation measures.

Some tree pruning and/or removal would be required to facilitate equipment access on top of the bank and to accommodate the footprint of the new wider bridge. The project would be constructed within one spring-summer construction season, except that tree removal may be conducted during the previous fall to avoid the migratory bird-nesting season.

Based on the Initial Study, the biological assessments prepared in connection with the preparation of the Initial Study, expert opinions, consultation with the California Department of Fish and Game (DFG), and County staff's experience with similar projects, the Board finds that with incorporation of Biological Resources Mitigation Measures 2 through 4, inclusive, the potential impacts on riparian habitat will be reduced to less than significant levels.

Impact 4c (Initial Study): The project may generate surplus soils for disposal off-site, and improper disposal of this material could affect off-site wetlands or other sensitive habitats.

Excavation activities associated with the Proposed Project could generate surplus soils for disposal off- site, and improper disposal of this material could affect off-site wetlands or other sensitive habitats. These impacts would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that implementation of Biological Resources Mitigation Measure No. 5 identified in the Initial Study would reduce the potential impact to wetlands or other sensitive habitats to a less-than-significant level. Biological Resources Mitigation Measure No. 5 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects to wetlands habitats.

Rationale

To construct the new bridge, Cast in Drilled Hole (CIDH) concrete piers would be drilled into the banks of the creek at the location of the abutments and at the center pier, with the number and size of the CIDH piers to be determined by the geotechnical investigation. The construction of these piers may generate surplus soils for disposal off-site, and improper disposal of this material could affect off-site wetlands or other sensitive habitats.

Based on the Initial Study, the biological assessments prepared in connection with the preparation of the Initial Study, expert opinions, consultation with the California Department of Fish and Game (DFG), and County staff's experience with similar projects, the Board finds that with incorporation of Biological Resources Mitigation Measure No. 5, the potential impacts on wetlands will be reduced to less than significant levels.

Impact 4d (Initial Study): The Proposed Project may interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

The Proposed Project would require the removal of some trees in the project area. The removal of those trees during nesting season could result in adverse impacts on young birds. In addition, the demolition of the existing bridge could impact barn swallows nesting under the bridge. These impacts would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that implementation of Biological Resources Mitigation Measure No. 6 identified in the Initial Study would reduce the potential impact to western pond turtles to a less-than-significant level. Biological Resources Mitigation Measure No. 6 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects to the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Rationale

Many of the trees at the project site provide habitat for song birds, and the removal of these trees during times of nesting could result in negative effects to young birds. In addition, barn swallows are typically found nesting underneath bridges throughout the county. Although the Watmaugh Road Bridge was not surveyed for swallows, it is assumed they would likely be present. Tree removal may impact nesting birds along Sonoma Creek, and bridge work and removal may impact nesting barn swallows.

Biological Resources Mitigation Measure No. 6 identifies routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed to minimize project impacts on nesting birds. Based on the Initial Study, the biological assessments prepared in connection with the preparation of the Initial Study, expert opinions, consultation with the California Department of Fish and Game (DFG), and County staff's experience with similar projects, the Board finds that with incorporation of Biological Resources Mitigation Measure No. 6, the potential impacts on nesting birds will be reduced to less than significant levels.

Impact 4e: The Proposed Project could conflict with local policies or ordinances protecting biological resources.

The Proposed Project will require the removal of some trees in the project area. These impacts would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that implementation of Biological Resources Mitigation Measures 2 through 5 identified in the Initial Study would reduce the potential impact to any local policies or ordinance, such as tree preservation policies. Biological Resources Mitigation Measures 2 through 5 have been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or

incorporated into, the Proposed Project which mitigate or avoid the significant effects to local policies or ordinances.

Rationale

The Sonoma County Official Zoning Database indicates that the Zoning Districts adjacent to the project site include Biotic Resources (BR) and Valley Oak Habitat (VOH). The VOH extends along Watmaugh Road as far east as Highway 12; dense riparian habitat borders the banks of the creek near the project site forming the BR. The proposed bridge replacement would be located generally within the existing ROW, thereby minimizing disturbance to the existing oaks and riparian habitat. Construction access would be gained from the southeast side of the bridge, which will require grading a road from the tip of the bank down to the channel bottom. Some pruning of willows and other riparian species will be required for preparation of the access road; however, cutting will be kept to a minimum. There are some California buckeye trees, black walnuts, and other trees on the path of the proposed access road that will likely not re-sprout if their main trunk is cut.

The mitigation measures identified under Impacts 4b and 4c, above, identify routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed will ensure the Proposed Project is consistent with local policies and ordinances. Based on the Initial Study, the biological assessments prepared in connection with the preparation of the Initial Study, expert opinions, consultation with the California Department of Fish and Game (DFG), and County staff's experience with similar projects, the Board finds that with incorporation of Biological Resources Mitigation Measures 2 through 5, inclusive, the potential impacts on local policies and ordinances will be reduced to less than significant levels.

Cultural Resource Impact No. 2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines.

The proposed project would remove and replace an existing bridge designated. The construction activities necessary to construct the new bridge could disturb archaeological resources in the project area. These potential effects to nesting birds would constitute a significant impact.

Finding

Based upon the Final EIR and the entire record, the Board finds that implementation of Cultural Resource Mitigation Measure No. 2 identified in the Final EIR would reduce the potential impact to archaeological resources to a less-than-significant level. Cultural Resource Mitigation Measure No. 2 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects to archaeological resources.

Rationale

There are no known archaeological resources on the project site, but the project could uncover such materials during construction. Cultural Resource Mitigation Measure No. 2 requires that if

archaeological materials are discovered during project construction, all construction activities in the immediate vicinity of the discovery must cease and a qualified archaeologist must be consulted to determine the significance of the find and recommend appropriate measures to protect the resource. The Board finds that, based on the discussion set forth in the Initial Study, implementation of Cultural Resource Mitigation Measure No. 2 will reduce potential impacts to archaeological resources from project construction to a less-than significant level.

Cultural Resource Impact No. 3: Project construction could potentially disturb human remains.

Although there are no known burial sites in the vicinity of the project, construction activities could disturb unknown Native American burial sites along Sonoma Creek. This impact would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that implementation of Cultural Resource Mitigation Measure No. 3 identified in the Final EIR would reduce potential impacts to human remains to a less-than-significant level. Cultural Resource Mitigation Measure No. 3 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects to unknown archaeological cultural resources and human remains associated with construction of short-term project elements.

Rationale

There are no known burial sites in the vicinity of the project site, and most of the project site has previously been disturbed by past construction. Notwithstanding this fact, Native American burial sites may exist along Sonoma Creek and could be disturbed by construction activities associated with the project. Cultural Resource Mitigation Measure No. 3 requires that if human remains are discovered during project construction, all construction activities in the immediate vicinity of the discovery must cease and the County Coroner must be notified to investigate the nature and circumstances of the discovery. If the discovery is determined to be prehistoric, appropriate measures to preserve the archaeological resource will be implemented. The Board finds that, based on the discussion set forth in the Initial Study, implementation of Cultural Resource Mitigation Measure No. 3 will reduce potential impacts to archaeological resources from project construction to a less-than significant level.

GEOLOGY AND SOILS

Impact 6b (Initial Study): Result in Substantial Erosion or Loss of Topsoil.

Construction activities associated with the erection of the new bridge could cause erosion on the banks below the bridge. This erosion could compromise the integrity of the new bridge and further increase erosion in the project area. These impacts would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that implementation of Geology Mitigation Measures 1 through 4 identified in the Initial Study would reduce the potential impact from soil erosion or loss of topsoil. Geology Mitigation Measures 1 through 4 have been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects to local policies or ordinances.

Rationale

The soils on the project site are a Huichica-Wright-Zamora association, subject to a slight erosion hazard. These soils are somewhat poorly drained to well-drained, nearly level to strongly sloping loams to silty clay loam, on low bench terraces and alluvial fans. Following construction, most areas disturbed by the project will be either covered with asphalt, or rock on the shoulders of the road or creek banks, and thus no potential for erosion. The only areas to remain uncovered following construction would be any new drainage ditches. If the project is constructed in the summer months, vegetation will reestablish quickly following the first rains in the fall. Because of the soil types and the flat nature of the site, no erosion control measures are needed for the ditches if they are constructed in the summer.

If construction of the roadside ditches were to occur during the rainy season, eroded soil from the disturbed areas could enter the roadside drainage system and ultimately enter the receiving waterway. This eroded soil could degrade water quality and adversely affect aquatic life.

Grading of the project site would be required to accommodate the proposed bridge replacement. Stockpiling of soils onsite would occur within the staging areas proposed within the temporarily closed portion of Watmaugh Road leading to either side of the proposed bridge replacement project.

Excessive erosion could undermine the new bridge and impact water quality. The removal of vegetation, discussed above in item 4 (d), and disturbance of soil could lead to excessive erosion into Sonoma Creek. Although the mitigation in item 4 (d) is sufficient to offset the vegetation removal from the project area, it must be accompanied by erosion control measures to protect the ground surface until the plantings become established.

To maintain the integrity of the new bridge, erosion must be prevented on the banks below the new bridge abutments and where the new piers meet the channel bottom. The disturbed slopes on the creek banks will be susceptible to erosion, especially where soil is displaced to recreate natural contours.

Geology Mitigation Measures Nos. 1 through 4 identify routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed to minimize project from soil erosion or loss of topsoil. Implementation of these measures will avoid these impacts and preserve the integrity of the new bridge. Based on the Initial Study, expert opinions, and County staff's experience with similar projects, the Board finds that with incorporation of Geology Mitigation Measures Nos. 1 through 4, inclusive, the

potential impacts from soil erosion and loss of topsoil will be reduced to less than significant levels.

HAZARDS AND HAZARDOUS MATERIALS

Impact 8a (Initial Study): Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials.

Construction will require use of fuels and other hazardous materials. Improper storage or handling of these materials could result in spills. This impact would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that Implementation of Hazardous Mitigation Measure No. 1 would reduce impacts associated with the transport, use or disposal of hazardous materials to a less-than-significant level. Hazardous Mitigation Measure No. 1 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects associated with the transport, use or disposal of hazardous materials.

Rationale

Construction will require use of fuels and other hazardous materials. Improper storage or handling of these materials could result in spills. The project staging area would be located within a closed portion of the existing right of way during construction. Although no significant biotic resources, including creeks and streams, cross the proposed staging area, the proposed bridge replacement would cross Sonoma Creek. Potential impacts from spills into the creek can be reduced to a less-than-significant level by requiring standard approved construction methods for handling hazardous materials.

Hazardous Mitigation Measure No 1 identifies routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed to minimize project impacts from the transport, use or disposal of hazardous materials. Based on the Initial Study, expert opinions, and County staff's experience with similar projects, the Board finds that with incorporation of Hazardous Mitigation Measure No. 1, the potential impacts from the transport, use or disposal of hazardous materials will be reduced to less than significant levels.

Impact 8b (Initial Study): Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Replacement of the existing bridge would involve using hazardous materials near Sonoma Creek. Accidental spills could occur causing potential contamination of the water body and adverse impacts on aquatic life forms. This impact would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that Implementation of Hazardous Mitigation Measure No. 2 would reduce impacts associated with the accidental release of hazardous materials to a less-than-significant level. Hazardous Mitigation Measure No. 2 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects from the potential accidental release of hazardous materials.

Rationale

Replacement of the existing bridge would involve using hazardous materials near Sonoma Creek. Accidental spills could occur causing potential contamination of the water body and adverse impacts on aquatic life forms.

Hazardous Mitigation Measure No 2 identifies routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed to minimize project impacts from the accidental release of hazardous materials into the environment. Based on the Initial Study, expert opinions, and County staff's experience with similar projects, the Board finds that with incorporation of Hazardous Mitigation Measure No. 2, the potential impacts from the accidental release of hazardous materials will be reduced to less than significant levels.

HYDROLOGY AND WATER QUALITY

Impact 9a (Initial Study): The proposed project could potentially violate water quality standards or waste discharge requirements.

Both construction activities related to the project and final implementation of the proposed project could potentially violate water quality standards or waste discharge requirements. This impact would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that compliance with permits issued by the Regional Water Quality Control Board, Army Corps of Engineers, California Department of Fish and Game, and Sonoma County Permit and Resource Management Department, and implementation of the mitigation measures set forth in Sections 4 and 6 of the Initial Study would reduce project-related impacts to water quality standards and/or waste discharge requirements to a less-than-significant level. Compliance with the aforementioned permits requirements is mandatory, and the mitigation measures set forth in Sections 4 and 6 of the Initial Study have been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects to water quality standards.

Rationale

Permits from the Regional Water Quality Control Board, Army Corps of Engineers, California Department of Fish and Game, and Sonoma County Permit and Resource Management Department will all be obtained prior to project implementation. Compliance with the requirements set forth by these permits, along with Mitigation Measures contained in Sections 4 and 6 of this Initial Study, will ensure that water quality standards are not violated. Therefore, potentially significant impacts resulting from the proposed project would be reduced to less-than-significant levels with the incorporation of these mitigation measures.

Based on the Initial Study, expert opinions, and County staff's experience with similar projects, the Board finds that compliance with the requirements set forth in the permits from the Regional Water Quality Control Board, Army Corps of Engineers, California Department of Fish and Game, and Sonoma County Permit and Resource Management Department, and the implementation of the mitigation measures set forth in Sections 4 and 6 of the Initial Study (discussed above), the potential impacts to water quality standards will be reduced to less than significant levels.

Impact 9e (Initial Study): The project could potentially create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

Project-related construction activities may cause polluted runoff to enter Sonoma Creek. This impact would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that Implementation of Hydrology and Water Quality Mitigation Measure No. 1 would reduce impacts associated with the transport, use or disposal of hazardous materials to a less-than-significant level. Hydrology and Water Quality Mitigation Measure No. 1 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects from polluted runoff.

Rationale

Runoff water from the proposed project is estimated to be consistent with the existing volumes and discharge points associated with the existing bridge. Construction activities may cause polluted runoff to enter Sonoma Creek.

Hydrology and Water Quality Mitigation Measure No 1 identifies routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed to minimize project impacts from polluted runoff. Based on the Initial Study, expert opinions, and County staff's experience with similar projects, the Board finds that with incorporation of Hydrology and Water Quality Mitigation Measure No. 1, the potential impacts from polluted runoff will be reduced to less than significant levels.

Impact 9f (Initial Study): The project could potentially degrade water quality.

Construction will require use of fuels and other hazardous materials. Improper storage or handling of these materials could result in spills that will substantially degrade water quality. Since the staging area for the project will be immediately adjacent to the channel, extra precautions need to be taken to ensure that the use and storage of hazardous materials do not present potential threats to the water quality of Sonoma Creek. This impact would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that Implementation of Hydrology and Water Quality Mitigation Measure No. 2 would reduce impacts to water quality to a less-than-significant level. Hydrology and Water Quality Mitigation Measure No. 2 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects to water quality.

Rationale

Replacement of the existing bridge would involve using hazardous materials near Sonoma Creek. Accidental spills could occur causing potential contamination of the water body and adverse impacts on aquatic life forms.

Hazardous Mitigation Measure No 2 identifies routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed to minimize project impacts that could potentially degrade water quality. Based on the Initial Study, expert opinions, and County staff's experience with similar projects, the Board finds that with incorporation of Hazardous Mitigation Measure No. 2, the potential impacts to water quality will be reduced to less than significant levels.

NOISE

Impact 12d (Initial Study): Construction noise impacts associated with the project could temporarily increase ambient noise levels in the project area.

Construction activities could create significant noise impacts. These impacts would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that the impacts to adjacent land uses will be reduced to a less-than-significant level by implementing Noise Mitigation Measure No. 1 identified in the Initial Study. Noise Mitigation Measure No. 1 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects from construction noise associated with the project.

Rationale

Construction activities could create significant noise impacts. These impacts will cease when construction is finished. Noise is expected from increased truck traffic and other various engine sources during most phases of construction and pile driving/drilling during a small portion of the construction period. Without restrictions, these noise sources could have a potentially significant impact despite occurring over 160 feet away from the nearest sensitive receptor. If unsuitable equipment is used, or if construction is allowed at inappropriate times, then the impacts from noise could be significant.

Noise Mitigation Measure No. 1 identifies routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed to minimize project construction noise impacts. Based on the Initial Study, expert opinions, and County staff's experience with similar projects, the Board finds that with incorporation of Noise Mitigation Measure No. 1, the potential impacts from project construction noise will be reduced to less than significant levels.

TRANSPORTATION AND TRAFFIC

Impact 16a (Initial Study): Conflict with applicable plan or policy establishing performance measures for the circulation system

The construction-related detours necessitated by the removal and replacement of the existing bridge could adversely impact local traffic circulation. This impact would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that the implementation of Traffic Mitigation Measures Nos. 1 and 2 identified in the Initial Study, as well as the additional traffic mitigation being imposed in response to Comment H-1 from Caltrans, will reduce this potential impact to a less-than-significant level. Traffic Mitigation Measures Nos. 1 and 2, as well as Traffic Mitigation Measure No. H-1, have been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects from construction traffic associated with the project.

Rationale

Because the proposed project would replace the existing bridge, a detour of existing traffic volumes would be necessary during construction. The closest road crossing over Sonoma Creek is Leveroni Road bridge, north of the project site. Using Leveroni Road as a detour route would add approximately 10-15 minutes to the existing commute that would otherwise use Watmaugh Bridge.

Leveroni Road crosses Sonoma Creek and connects Hwy 12 with Arnold Drive. Leveroni Road ADTs range from 4739 to 5357; AM/PM peaks range from 318-503 and 399-503 respectively. The proposed project would temporarily add to Leveroni Road bridge the volumes associated with Watmaugh Road: 1652 to 2111 ADT; 150-190 AM peak and 143 to 201 PM peak. (County of Sonoma Traffic Volumes, January 2008 through December 2010)

During construction, traffic will use the existing Watmaugh roadway leading to the existing bridge until the new bridge and approaches are prepared, then traffic will be directed onto the new bridge. There may be infrequent traffic delays during certain times when the contractor must have the roadway clear or reduced to one lane.

Traffic Mitigation Measures Nos. 1 and 2 identify routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed to minimize project impacts from construction related traffic. In addition, Traffic Mitigation Measure H-1 introduces additional measures also designed to reduce construction-related traffic impacts. Based on the Initial Study, expert opinions, and County staff's experience with similar projects, the Board finds that with incorporation of Traffic Mitigation Measures Nos. 1, 2 and H-1, the potential impacts from construction-related traffic will be reduced to less than significant levels.

Impact 16d (Initial Study): The proposed project could substantially increase hazards due to a design feature.

The proposed project could potentially include a design feature that would increase hazards due to reduce sight lines or similar deficiencies. This impact would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that the implementation of Traffic Mitigation Measure No. 3 identified in the Initial Study will reduce this potential impact to a less-than-significant level. Traffic Mitigation Measure No. 3 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects from increased hazards to a project design feature.

Rationale

The proposed replacement bridge would not include hazardous design features. In fact, the proposed project design actually improves conditions at the project site. Approaches on both sides of the proposed bridge would be realigned to improve the flow of traffic and the line-of-sight for the traveling public, increasing public safety.

Nevertheless, to ensure there is no potential to introduce new hazards from a project design feature, Traffic Mitigation Measure No. 3 identifies routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed to minimize temporary design impacts from construction related traffic. Based on the Initial Study, expert opinions, and County staff's experience with similar projects,

the Board finds that with incorporation of Traffic Mitigation Measure No. 3, the potential impacts from construction-related design to traffic will be reduced to less than significant levels.

Impact 16e (Initial Study): The proposed project could result in inadequate emergency access during construction.

The proposed project could potentially result in inadequate emergency access during construction due to road closures and detours. This impact would be considered significant.

Finding

Based upon the Final EIR and the entire record, the Board finds that the implementation of Traffic Mitigation Measure No. 4 identified in the Initial Study will reduce this potential impact to a less-than-significant level. Traffic Mitigation Measure No. 4 has been incorporated into the Conditions of Approval. Accordingly, changes or alterations have been required in, or incorporated into, the Proposed Project which mitigate or avoid the significant effects due to construction-related delays to emergency access.

Rationale

Construction activities may result in traffic delays possibly slowing emergency response vehicles or restricting access to residences or nearby businesses. This is a short term construction related impact that will cease upon project completion. The existing bridge would be closed to traffic during construction. Alternate routes are available within the vicinity of Watmaugh Road to both the north and south, via Leveroni Road and State Highway 12/121. The maximum detour length would be approximately 5 miles.

Traffic Mitigation Measure No. 4 identifies routine Best Management Practices (BMPs) and standard conditions imposed on most similar County projects. These measures are specifically designed to ensure adequate emergency access during construction. Based on the Initial Study, expert opinions, and County staff's experience with similar projects, the Board finds that with incorporation of Traffic Mitigation Measure No. 4, the potential impacts to emergency access during construction will be reduced to less than significant levels.

EXHIBIT “B”

SIGNIFICANT IMPACTS THAT CANNOT BE FULLY MITIGATED

The Final EIR identifies the following significant or potentially significant adverse environmental impacts of the Proposed Project that cannot be fully mitigated to an insignificant level and are, therefore, significant unavoidable impacts:

CULTURAL RESOURCE IMPACTS

Cultural Resource Impact No. 1: Removal and Replacement of Existing Historic Bridge

Facts

The proposed project would remove and replace the existing Watmaugh Road Bridge that is designated as historically significant by the County, and is eligible for inclusion on the California Register. Based on an evaluation by Tom Origer and Associates (2012), the removal of the bridge would cause a substantial adverse change to the bridge such that it would no longer be a significant historical resource, even with the proposed incorporation of elements of the existing bridge into the new bridge.

Finding

Based upon the Final EIR and the entire record, the Board finds that no viable mitigation measures are available and this would be considered a significant and unavoidable impact.

Rationale

The Proposed Project will remove a structurally unsound and dangerous bridge that cannot be retrofitted or rehabilitate to a Caltrans sufficiency rating better than 80/100. The existing bridge is functionally obsolete, structurally deficient, and scour critical, with a current Caltrans sufficiency rating of 4/100. In a letter dated November 7, 2012, Caltrans stated that this sufficiency rating makes the existing Watmaugh Bridge one of the worst rated bridges in California. Moreover, the structure of the existing bridge lacks the redundant structural components employed in modern construction, increasing the risk of failure during a seismic event. The only way to cure these deficiencies is to remove the existing historical resource and replacing it with a new bridge. However, this will result in the permanent loss of the historic resource. To lessen this impact, Cultural Resource Mitigation Measure 1 requires the County to photo archive the existing bridge. However, will this mitigation will reduce the impact to the historic resource it will not reduce the impact to a less-than-significant level. Therefore, the Cultural Resource Impact No. 1 will remain significant and unavoidable.

LAND USE AND PLANNING

Land Use Impact No. 2: Removal of Existing Bridge Conflicts with Purpose of HD Zoning

Facts

Removal of the existing bridge as proposed by the project would conflict with the purpose of the existing HD zoning. If the bridge project is approved, future rezoning to remove the bridge from the HD district would likely be required.

Finding

Based upon the Final EIR and the entire record, the Board finds that the removal of the bridge from the HD zoning would conflict with the purposes of the HD zoning district and have a significant and unavoidable impact to historic resources.

Rationale

Several meetings have taken place with the Landmarks Commission over the past two years to discuss the proposed project and various project alternatives. On July 24, 2012, the Landmarks Commission reviewed the Proposed Project as required by the procedures for HD bridges and bridge removal projects. The Landmarks Commission recommended denial of the Proposed Project in part because they concluded that the replacement bridge would remove an important historic resource and would conflict with the purposes of the HD zoning to preserve the historic character of the bridge, even with the proposed mitigation to retain the trusses. The Commission was also concerned that the Proposed Project would result in the need to rezone the site to remove the bridge from the HD District.

Based on the evidence before it, the Board finds that the Proposed Project would remove and replace the existing Watmaugh Road Bridge, designated as a local historically significant structure by the County and is eligible for inclusion on the California Register. The removal of the bridge as proposed by the project would cause a substantial adverse change to the bridge such that it would no longer be a significant historical resource, even with the proposed incorporation of elements of the existing bridge into the new bridge. The Board further finds that there is no feasible mitigation to lessen this impact to the HD zoning. Therefore, the project would have a potentially significant and unavoidable adverse impact to a historical resource.

CONCLUSION

With respect to all of the unmitigated impacts referenced above and those impacts discussed in Exhibit "A," the Board finds that all feasible mitigation measures and alternatives have been adopted to avoid or substantially lessen the environmental impacts of the Proposed Project. These adopted measures are incorporated into the Conditions of Approval for the Proposed Project.

EXHIBIT “C”

STATEMENT OF OVERRIDING CONSIDERATIONS

I. Introduction

1.1 In approving the Proposed Project, which is evaluated in the Final EIR, the Board makes the following Statement of Overriding Considerations pursuant to Public Resources Code section 21081 and State CEQA Guidelines section 15093 in support of its findings on the Final EIR. The Board has considered the information contained in the Final EIR and has fully reviewed and considered all of the public testimony, documentation, exhibits, reports, and presentations included in the record of these proceedings. The Board specifically finds and determines that this Statement of Overriding Considerations is based upon and supported by substantial evidence in the record.

1.2 The Board has carefully weighed the benefits of the Proposed Project against any adverse impacts identified in the Final EIR that could not be feasibly mitigated to a level of insignificance. As more fully set forth in the Final EIR, the significant impacts of the Proposed Project that arguably cannot be mitigated to levels of insignificance include the impact on cultural resources due to the removal and replacement of the existing bridge that is designated as historically significant by the County (Cultural Resources Impact No. 1) and the impact to the HD zoning policy from the loss of the historical bridge (Land Use and Planning Impact No. 1). These impacts are specifically identified in Exhibit “B” to this resolution. While the Board has required all feasible mitigation measures, such impacts remain significant for purposes of adopting this Statement of Overriding Considerations.

1.3 Notwithstanding the identification and analysis of the impacts that are identified in the Final EIR as being significant and potentially significant which arguably may not be avoided, lessened, or mitigated to a level of insignificance, the Board, acting pursuant to Public Resources Code Section 21081 and Section 15093 of the State CEQA Guidelines, hereby determines that specific economic, legal, social, technological and other benefits of the Proposed Project outweigh any unavoidable, adverse impacts of the Proposed Project and that the Proposed Project should be approved.

1.4 This Statement of Overriding Considerations applies specifically to those impacts found to be significant and unavoidable as set forth in the Final EIR and the record of these proceedings. In addition, this Statement of Overriding Considerations applies to those impacts which have been substantially lessened but not necessarily lessened to a level of insignificance.

1.5 Based upon the objectives identified in the Proposed Project and the Final EIR and the detailed conditions of approval imposed upon the Proposed Project and following extensive public participation and testimony, the Board has determined that the Proposed Project, as recommended for approval by County staff, should be approved as conditioned and that any remaining unmitigated environmental impacts attributable to the Proposed Project are outweighed by the following specific economic, fiscal, social, environmental, land use and other overriding considerations, any one of which is sufficient, in the Board’s view, to approve the Proposed Project.

II. Benefits of the Proposed Project

2.1 Structural Safety: The Proposed Project will remove a structurally unsound bridge with safety concerns that cannot be retrofitted or rehabilitated to a Caltrans sufficiency rating better than 80/100. The existing bridge functionally obsolete, structurally deficient, and scour critical, with a current Caltrans sufficiency rating of 4/100. During high flow events in the Sonoma Creek, the piers, which have been compromised by the scouring, can be undermined and the bridge could fail. In a letter dated November 7, 2012, Caltrans stated that this sufficiency rating makes the existing Watmaugh Bridge one of the worst rated bridges in California. Moreover, the structure of the existing bridge lacks the redundant structural components employed in modern construction, increasing the risk of failure during a seismic event. The Board finds that the failure to replace the existing bridge could expose people and property to risk of injury or death. The Proposed Project will replace the bridge with a structurally superior new bridge that (i) meets all modern standards, (ii) provides an anticipated life expectancy of 100 years, and (iii) protects the public health, safety and welfare.

2.2 Enhance Pedestrian and Bicyclist Safety: The Proposed Project will improve pedestrian and bicyclist safety by providing five-foot (5') shoulders to ensure these non-motorists have a safe path of travel across the Watmaugh Bridge.

2.3 Improved Sight Distances: The Proposed Project will greatly improve the road alignment and sight distances along Watmaugh Road, thereby enhancing the safety of both (i) the motorists, pedestrians, and bicyclists traveling on the bridge and (ii) nearby residents whose driveways enter Watmaugh Road in close proximity to the bridge.

III. Conclusion

3.1 The Board finds that the Proposed Project has been carefully reviewed and that the Conditions of Approval have been imposed to implement the mitigation measures identified in the Final EIR, and to address numerous other issues. Nonetheless, the Proposed Project may have certain environmental effects that cannot be avoided or substantially lessened. The Board has carefully considered all of the environmental impacts that have not been mitigated to an insignificant level. The Board has carefully considered the fiscal, economic, social, environmental, and land use benefits of the Proposed Project. The Board has balanced the fiscal, economic, social, environmental, and land use benefits of the Proposed Project against its unavoidable and unmitigated adverse environmental impacts and, based upon substantial evidence in the record, has determined that the benefits of the Proposed Project outweigh the adverse environmental effects.

3.2 Based on the foregoing and pursuant to Public Resources Code section 21081 and State CEQA Guidelines section 15093, the Board finds that the remaining significant unavoidable impacts of the Proposed Project are acceptable in light of the economic, fiscal, social, environmental and land use benefits of the Proposed Project. Such benefits outweigh such

significant and unavoidable impacts of the Proposed Project and provide the substantive and legal basis for this Statement of Overriding Considerations.

3.3 Last, the Board finds that, to the extent that any impacts identified in Exhibit “B” remain unmitigated, mitigation measures have been required to the extent feasible, although the impacts could not be reduced to a less-than-significant level.

Accordingly, when deciding to approve the Proposed Project, the Board is faced with presumed unmitigated impacts that are limited in nature. When considering the significant benefits outlined in this Statement of Overriding Consideration against limited impacts, the balance of weight clearly falls in favor of the merits of the Proposed Project and its benefits.

EXHIBIT “D” ALTERNATIVES

1.0 INTRODUCTION

As required under Section 15126(d) of the *CEQA Guidelines*, the purpose for an Environmental Impact Report (EIR) is to discuss a range of reasonable alternatives to a proposed project that feasibly attains most of the basic objectives of the project while avoiding or lessening significant environmental effects. An evaluation of the comparative merits of the project alternatives also is required. A feasible alternative is an alternative capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

2.0 STATEMENT OF PROJECT OBJECTIVES

In compliance with Section 15124(b) of the *CEQA (California Environmental Quality Act) Guidelines*, the County is required to identify its objectives associated with the proposed Watmaugh Road Bridge Replacement Project. As the project proponent, the County has identified five objectives for the implementation of the Proposed Project. These five objectives are all associated with constructing a bridge that meets modern standards and provides a safe passage for the traveling public over Sonoma Creek. These are the objectives for the Proposed Project, as set forth in the Final EIR:

- Eliminate structural deficiencies and increase load limits;
- Meet current seismic standards;
- Provide standard shoulder width that would accommodate large loads and minimize frequent collisions with guard railing;
- Provide improved road alignments and sight distance, and
- Eliminate the risk of failure due to non-redundant structural components of the bridge that could result in failure.

3.0 SIGNIFICANT IMPACTS OF THE PROPOSED PROJECT

As more fully set forth in the Final EIR and in Exhibit B to this resolution, the Proposed Project poses certain significant or potentially significant adverse environmental impacts that arguably cannot be mitigated to a level of insignificance. The one significant impact of the Proposed Project, which may not be mitigated to a level of insignificance, is the loss of a County landmark historic bridge. These impacts are discussed in detail in the Final EIR, and more succinctly in Exhibit “B” of this Resolution.

4.0 FINDINGS REGARDING ALTERNATIVES

An EIR is required to identify the environmentally superior alternative—that is, the alternative having the potential for the fewest significant environmental impacts—from among the range of reasonable alternatives that are evaluated. Here, the environmentally superior alternative appears

to be the No Project Alternative. It would have the fewest environmental impacts but would not meet any of the project objectives.

The six alternatives evaluated in the Final EIR in an equal level of detail are the No Project Alternative; Alternative 2 Construction of a Downstream Bridge Leaving Existing Bridge In Place; Alternative 3 Rehabilitate the Existing Bridge; Alternative 4 Replace Existing Bridge with Steel Arch Bridge; Alternative 5 Rehabilitate Existing Bridge and Add a Parallel Bicycle/Pedestrian Bridge Downstream; and Alternative 6 Rehabilitate Existing bridge and Add a One-Way Bridge for Traffic and Bicycle/Pedestrians Downstream of Existing Bridge. The No Project Alternative would avoid the environmental effects associated with implementation of the Proposed Project, but the existing bridge would continue to be seismically inadequate, could expose people and property to risk of injury, and may continue to degrade to a point where permanent closure may be necessary.. The No Project Alternative does not meet the project objectives. Moreover, if the County were to select the No Project Alternative in lieu of the Proposed Project, there would be potential consequences as described above.

Alternative 2 would meet the project objectives, and save the County landmark historic bridge, it would have greater impacts on riparian habitat, roadside trees, potential for increased noise to one residence, and one significant unavoidable impact on aesthetics as compared to the Proposed Project. Alternative 3 would meet the project objectives, and save the County landmark historic bridge, and have similar impacts as the Proposed Project, including a significant unavoidable impact due to the rehabilitation substantially altering the historic nature of the existing bridge. Alternative 4 would meet the project objectives, and have similar impacts as the Proposed Project, however, it would not retain the existing steel trusses as the Proposed Project. Alternative 5 would meet the project objectives, and save the County landmark historic bridge, it would have greater impacts, it would have substantially more impact on riparian habitat than the Proposed Project. Alternative 6 would meet the project objectives, and save the County landmark historic bridge, it would have greater impacts including a significant unavoidable impact due to the rehabilitation substantially altering the historic nature of the existing bridge, potential for increased noise on one residence, and greater riparian habitat impacts than the Proposed Project.

The CEQA Guidelines require that if the No Project Alternative is the environmentally superior alternative, another alternative must also be identified as the environmentally superior alternative. Of the remaining alternatives, none offer any substantial environmental benefit over the Proposed Project. Therefore, the Proposed Project is considered to be the environmentally superior alternative because it meets the five objectives with the least amount of environmental impact.

The Final EIR satisfies the requirements of CEQA by providing a reasonable range of alternatives, each of which is intended to address means by which the unavoidable adverse impacts of the Proposed Project can be lessened. For the reasons set forth herein, the Board finds that specific economic, legal, social, technological or other benefits make it infeasible to approve the No Project Alternative evaluated in the Final EIR.

5.0 NO PROJECT ALTERNATIVE

5.1 Description

Under the No Project Alternative, the existing bridge would not be replaced. The bridge would be maintained to allow for its continued use and would continue to be seismically inadequate and subject to damage or collapse under strong seismic conditions. This alternative could expose people and property to risk of injury and may be considered a significant impact. In addition, since the current bridge is rated by Caltrans as Functionally Obsolete and designated as Scour Critical, at some point in the future, as the bridge continues to degrade or becomes a safety concern for motorists, the costs to maintain the bridge may become too great and require closure of the bridge permanently.

5.2 Growth Inducement

The No Project Alternative has no growth-inducing impacts.

5.3 Cumulative Impacts

The No Project Alternative would not contribute to any cumulative impacts.

5.4 Ability to Meet Project Objectives

The No Project Alternative would fail to meet any of the key objectives of the Proposed Project. The bridge would remain open and be a safety concern for the traveling public, until a point where the bridge would be closed to traffic.

6.0 ALTERNATIVE 2

6.1 Description

Under Alternative 2, Alternative 2 would leave the existing bridge in place and public access to it may be considered. A new bridge for vehicle traffic would be constructed adjacent to and downstream of the existing bridge (see Figure 4). The new bridge would be a two span pre-stressed concrete box girder or slab bridge that would be approximately 185 feet in length, and would be 32 feet wide, consisting of two 11-foot travel lanes and two 5-foot shoulders. The approach roadway width would also be widened to about 32 feet until it conforms to the existing roadway at each end of the bridge. Estimated construction costs for this alternative are \$4 million.

To construct the new bridge, Cast in Drilled Hole (CIDH) concrete piers would be drilled into the banks of the creek at the location of the abutments and at the center pier, with the number and size of the CIDH piers to be determined by the geotechnical investigation.

A new roadway alignment would be required in order for the new bridge to connect with Watmaugh Road. Acquisition of neighboring private property would be necessary to accommodate the new alignment of the bypass bridge and associated approaches from

Watmaugh Road. This alternative meets the objectives of the proposed project, and retains the existing County Landmark Bridge. As opposed to the upstream alternative that was rejected as infeasible above, no homes would be displaced by this option. Additional right-of-way would be required to the south accommodate the new bridge but would not be expected to adversely affect building setbacks or minimum lot size requirements.

6.2 Environmental Impacts

Aesthetics

Due to the overall change in the setting caused by placing an additional 32-ft wide bridge at the site, this alternative would alter the physical setting much more than the proposed project (Figures 5-6). Using the same criteria, the PRMD Visual Assessment Guidelines, which were applied to the proposed project, this alternative would result in a significant unavoidable impact because the large new concrete bridge would detract from the existing rural feel of the area. While the new bridge would in no way block views of the historic bridge the modern concrete bridge would become co-dominant with the existing bridge reducing the quality of the view dramatically. This alternative would have a greater impact to aesthetics than the proposed project and would result in a significant unavoidable impact to the scenic resources found at the site.

Biological Resources

This alternative would require the removal of a greater amount of riparian vegetation on both banks compared to the proposed project, including several large oaks and bay trees for the new road alignment, and to provide access to the creek channel to construct the new bridge. This alternative would result in a new permanent loss of bank habitat due to the placement of new abutments and piers, reducing the quality of habitat overall in Sonoma Creek.

The additional bridge would also result in indirect impacts due to the temporary loss of riparian vegetation that provides shading to retain lower water temperatures and essential habitat for California freshwater shrimp and other sensitive species. As a result, the impacts would require a much greater revegetation effort to offset the loss of vegetation. The impacts to California freshwater shrimp, steelhead and possibly other sensitive species may require compensatory mitigation through purchase of mitigation bank credits, obtaining conservation easements, or by other means. This alternative would have a greater impact to biological resources than the proposed project.

Cultural Resources

Although this alternative would retain the existing bridge, it would alter the setting dramatically, which would be an impact to the integrity of the bridge and therefore its historic value. However, the remaining elements of historical integrity (location, design, materials, workmanship, feeling, and association) would remain intact. The alteration to the setting of the bridge can be reduced by retaining as much of the riparian area between the two bridges as possible and planting additional trees in the space available. With the additional planting to match the existing riparian,

the impact to the historic integrity of the bridge would be at a level that would be less than significant and would generally avoid the significant impact to the historic resource associated with the proposed project.

Land Use

This alternative saves the existing bridge, and thus would no longer be in conflict with the policies within the HD zoning district.

Noise

This project alternative moves the bridge further from three homes, and closer to one home, on the southeast side of the bridge. A noise study was conducted to determine if the shift in the roadway closer to this receptor resulted in a significant impact (Illingworth and Rodkin, Inc., September 5, 2012) (Appendix G). This study determined that, although noise levels increase slightly at this receptor, they would not be expected to exceed the General Plan noise thresholds for noise on public roadways and therefore the potential noise impact from this alternative would be less than significant.

6.3 Growth Inducement

Alternative 2, as with the Proposed Project, would not add a new traffic lane or in any way add extra new capacity to Watmaugh Road, no growth-inducing impacts are expected to occur..

6.4 Cumulative Impacts

Alternative 2, as with the Proposed Project, would not result in any cumulative impacts..

6.3 Ability to Meet Project Objectives

Like the Proposed Project, Alternative 2 meets all of the objectives of the project.

6.4 Conclusion

Although Alternative 2 would meet all of the project objectives, it would have greater impacts. Alternative 2 offers no environmental benefits over the Proposed Project and would result in greater impacts to riparian habitat, roadside trees, and a potential for elevated noise levels at one residence as compared to the Proposed Project, as a result of constructing the bridge in area where no bridge currently exist, and shifting the roadway approaches to the south. Thus, Alternative 2 offers no environmental benefits over the Proposed Project.

7.0 ALTERNATIVE 3

7.1 Description

This alternative would consist of replacing the existing concrete piers, adding structural steel over much of the existing steel lattice-work on the trusses, (essentially boxing in the trusses in new steel), strengthening the floor beams, replacing the existing bridge deck, rehabilitating the

abutments, and repainting the structural steel. This alternative would address more of the existing structural and functional problems of the existing bridge when compared to the seismic retrofit, but would also result in major physical changes to the appearance of the historic bridge.

This alternative meets the majority of the objectives of the proposed project objectives (1, 2 and 5 listed above) and would retain the existing bridge trusses and other more minor elements of the existing bridge. Estimated construction costs for this alternative is 6.1 million dollars and currently would not be eligible for federal funding.

7.2 Environmental Impacts

Aesthetics

This alternative would have a very similar impact to aesthetics than the proposed project with the exception of the new structural steel added to the bridge covering much of the original detail of the bridge trusses. While the bridge detail is detectable up-close and at low speed and would likely appear to the traveling public as simply a newly painted steel truss bridge. The visual impacts to the riparian setting within Sonoma Creek would be the same as the proposed project and would not result in a significant unavoidable impact to scenic resources found at the site.

Cultural Resources

Although this alternative would retain the existing historic structure the extensive alterations on the bridge would result in major changes to the integrity of materials, workmanship, and feeling of the bridge that would essentially be equal to the impacts on historic resource from the proposed project and would also result in substantial adverse impact to the historical significance of the bridge.

Land Use

This alternative retains the existing bridge, and thus would no longer be in conflict with the policies within the HD zoning district. While this is the case, the intent of the HD is to protect the bridge from physical impacts and degradation. Conflicts with policies and plans in themselves are not viewed in the same manner as physical effects to historic resources that are described above under Cultural Resources.

7.3 Growth Inducement

Alternative 3, as with the Proposed Project, would not add a new traffic lane or in any way add extra new capacity to Watmaugh Road, no growth-inducing impacts are expected to occur.

7.4 Cumulative Impacts

Alternative 3, as with the Proposed Project, would not result in any cumulative impacts .

7.5 Ability to Meet Project Objectives

Like the Proposed Project, Alternative 3 meets most of the project objectives.

7.4 Conclusion

Similar to the proposed project, Alternative 3 would result in a significant unavoidable impact to the County historic landmark bridge⁴. Thus, Alternative 3 offers no environmental benefits over the Proposed Project.

8.0 ALTERNATIVE 4

8.1 Description

This alternative would construct a new bridge with design elements that would be integrated into the structure and function of the bridge. This bridge design would essentially have the same impacts as the proposed project except existing trusses would not be retained for reuse on the new bridge adding some additional impact to historic resources. This alternative would meet all of the objectives of the project but would not reduce any significant unavoidable impacts compared to the proposed project. A new steel arch bridge would have more of a contrast to the setting and thus would have a slightly greater aesthetic impact than the project. Impacts to cultural resources would also be greater since no part of the historic structure would be retained. A new steel arch bridge would likewise conflict with policies of the HD zoning to preserve the existing bridge and could result in significant changes to the viewshed. Additionally if the County opted to fund the difference in cost with the FHWA, the cost to the County would likely require a good deal of time, possibly years to attain the needed funding, leaving the substandard structure in place for an indeterminate period. Possible road closure in the interim period is also likely with secondary traffic impacts. Estimated construction costs for this alternative are 8-10 million dollars.

8.2 Growth Inducement

Alternative 4, as with the Proposed Project, would not add a new traffic lane or in any way add extra new capacity to Watmaugh Road, no growth-inducing impacts are expected to occur.

8.3 Cumulative Impacts

Alternative 4, as with the Proposed Project, would not result in any cumulative impacts would result in the same cumulative impacts as those described for the Proposed Project.

8.4 Ability to Meet Project Objectives

Like the Proposed Project, Alternative 4 meets all of the project objectives.

8.5 Conclusion

Similar to the proposed project, Alternative 4, however, it would not retain the existing steel trusses as the Proposed Project. Thus, Alternative 4 offers no environmental benefits over the Proposed Project.

9.0 ALTERNATIVE 5

9.1 Description

This alternative would rehabilitate the existing bridge (see discussion above under Alternative 3 above) and construct an approximately 10-foot wide separate bicycle/pedestrian crossing. The new crossing would be placed downstream of the existing bridge, but either way would require the purchase of additional ROW from adjacent parcels. As described previously, rehabilitation of the existing bridge would substantially alter its historic value and appearance resulting in significant unavoidable impact to its historical significance, similar to the proposed project. Construction of a downstream bike/pedestrian bridge would further degrade the riparian habitat and the visual character of the bridge by altering the site setting likely resulting in a new significant unavoidable impact similar to Alternative 2 (see above). This project alternative would not reduce impacts when compared to the proposed project. Additionally if the County opted to fund the difference in cost with the FHWA, the cost to the County would likely require a good deal of time, possibly years to attain the needed funding, leaving the substandard structure in place for an indeterminate period. Possible road closure in the interim period is likely with potential for secondary traffic impacts.

9.2 Growth Inducement

Alternative 5, as with the Proposed Project, would not add a new traffic lane or in any way add extra new capacity to Watmaugh Road, no growth-inducing impacts are expected to occur.

9.3 Cumulative Impacts

Alternative 5, as with the Proposed Project, would not result in any cumulative impacts would result in the same cumulative impacts as those described for the Proposed Project.

9.4 Ability to Meet Project Objectives

Like the Proposed Project, Alternative 5 meets most of the project objectives.

9.5 Conclusion

Similar to the proposed project, Alternative 5, would result in a significant unavoidable impact to the County historic landmark bridge. Thus, Alternative 5 offers no environmental benefits over the Proposed Project.

10.0 ALTERNATIVE 6

10.1 Description

This alternative would rehabilitate the existing bridge (see discussion above under Alternative 3 regarding rehabilitation) and construct an approximately 16-18 foot wide, one lane bridge to provide a single eastbound traffic lane and add a 5-foot shoulder for bicycles and pedestrians. The bridge would require the purchase of additional ROW from adjacent parcels. The rehabilitation of the existing bridge would substantially alter the appearance and characteristics of this resource and would result in a substantial adverse impact to the historic integrity of the bridge. The construction of a single-lane bridge would further degrade the riparian habitat along Sonoma Creek as well as the visual character of the bridge by altering the setting. In addition, neither the rehabilitation nor the separate one-lane bridge are eligible for federal funding and would require local funding that is currently unavailable likely leaving the existing deficient bridge in place until funding was made available. Therefore, this alternative would not reduce the significant unavoidable impacts to cultural resources and would add new impacts to visual and biotic resources. Additionally if the County opted to fund the project without federal funding, it would require a good deal of time, possibly years to attain the needed funding, leaving the substandard structure in place for an indeterminate period. Possible road closure in the interim period is likely with potential for secondary traffic impacts.

10.2 Growth Inducement

Alternative 5, as with the Proposed Project, would not add a new traffic lane or in any way add extra new capacity to Watmaugh Road, no growth-inducing impacts are expected to occur.

10.3 Cumulative Impacts

Alternative 6, as with the Proposed Project, would not result in any cumulative impacts would result in the same cumulative impacts as those described for the Proposed Project.

10.4 Ability to Meet Project Objectives

Like the Proposed Project, Alternative 6 meets most of the project objectives.

10.5 Conclusion

Similar to the proposed project, Alternative 6, would result in a significant unavoidable impact to the County historic landmark bridge. Thus, Alternative 6 offers no environmental benefits over the Proposed Project.

11.0 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the environmentally superior alternative—that is, the alternative having the potential for the fewest significant environmental impacts—from among the range of reasonable alternatives that are evaluated.

Here, the environmentally superior alternative appears to be the No Project Alternative. It would have the fewest environmental impacts but would not meet any of the project objectives.

The CEQA Guidelines require that if the No Project Alternative is the environmentally superior alternative, another alternative must also be identified as the environmentally superior alternative. Of the remaining alternatives, none offer any substantial environmental benefit over the Proposed Project. Therefore, the Proposed Project is considered to be the environmentally superior alternative because it meets all of the project objectives with the least amount of environmental impact.

EXHIBIT “E”



MITIGATION MONITORING PROGRAM

Sonoma County Permit and Resource Management Department

2550 Ventura Ave, Santa Rosa, CA 95403

(707) 565-1900 Fax (707) 565-8358

Pursuant to Section 21081.6 of the Public Resources Code, the mitigation measures listed in this program are to be implemented as part of the project. This program identifies the time at which each mitigation measure is to be implemented and the person(s) responsible. The signature of each responsible person will indicate completion of their portion of the mitigation measure.

Project: Watmaugh Road Bridge Replacement Project

Project Applicant: Department of Transportation & Public Works

Location: Sonoma Valley

Lead Agency: County of Sonoma

Decision Making Body: Board of Supervisors

P.P.R. # 12-06-05

Date Approved: _____

SCH # 2012082037

Contact Person(s): Rich Stabler, Levi Gurule

Time of Implementation

- Design:* The mitigation measure will be incorporated into the project design and/or included in the plans and contract special provisions prior to awarding a construction contract.
- Pre-Construction:* The mitigation measure will be implemented before construction begins.
- Construction:* The mitigation measure will be implemented during construction.
- Post-Construction:* The mitigation measure will be implemented after project construction.

Responsible Persons

The Permit and Resource Management Department will designate an Environmental Specialist. The Department of Transportation and Public Works will designate a Design Engineer and a Construction Engineer.

The Environmental Specialist will certify that a review of the project and plans and specifications was made with the Design Engineer prior to advertising for construction bids or otherwise initiating project

construction. The Design Engineer will identify how each mitigation measure has been incorporated into the project. The Construction Engineer (or other person identified in the program) will certify that the mitigation measure has been implemented.

Environmental Record

Before the construction contract is awarded, the Design Engineer will forward the mitigation monitoring program to the Construction Engineer, with a copy to the Environmental Specialist. At completion of construction the Construction Engineer will return the original signed mitigation monitoring program to the Environmental Specialist for filing.

RECORD OF COMPLIANCE

The Environmental Specialist has reviewed the project design, and plans and specifications with the Design Engineer to assure that the responsibility for completion of the mitigation measures has been assigned and plans and specifications incorporate the appropriate mitigation measures.

Environmental Specialist

date

- | | |
|---|---|
| 1 | <i>The proposed tree replacement shall include native oaks, California bay, and other native species planted, irrigated and maintained within the public ROW along Watmaugh Road and Sonoma Creek that are compatible with existing riparian setting.</i> |
|---|---|

Time of Implementation: Design, Construction

- Method:
- G Incorporated into the project design
 - G Included in the project plans and specifications (contractor will implement)
 - G County forces
 - ☐ Other (specify) – implemented by PRMD – Environmental Review Division staff

Environmental Specialist certifies that this mitigation measure has been implanted following project construction.

Comments:

2	<i>The proposed replacement bridge design shall include the truss elements found on the existing bridge on both sides of the proposed bridge. In addition, existing guard rails, soffits, and other visually prominent elements of the existing bridge shall be incorporated into the proposed bridge to the degree feasible without compromising the structural integrity of project. Where utilizing existing bridge components would not be practical, new materials shall be treated to blend with reused bridge elements and the surrounding rural community.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
 ☐ Included in the project plans and specifications (contractor will implement)
 G County forces
 G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

3	<p><i>The following dust control measures shall be included in the project:</i></p> <p><i>(a) Water or dust palliative shall be sprayed on unpaved construction and staging areas during construction as directed by the County.</i></p> <p><i>(b) Trucks hauling soil, sand and other loose materials over public roads shall cover the loads, or shall keep the loads at least two feet below the level of the sides of the container, or shall wet the load sufficiently to prevent dust emissions.</i></p> <p><i>(c) Paved roads shall be swept as needed to remove soil that has been carried onto them from the project site.</i></p> <p><i>(d) Water or other dust palliative shall be applied to stockpiles of soil as needed to control dust.</i></p>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☐ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

4	<p><i>The following measures shall be included in the project:</i></p> <ul style="list-style-type: none"> • <i>Construction dates for work in the flowing water are June 15 to October 15. Work outside the flowing water can occur May 15th until October 15.</i> • <i>The County shall require that a qualified and permitted individual remove any fishes, turtles and other significant aquatic species from Sonoma Creek in the project area immediately prior to installation of the work pad and again from the confined pool created during work pad construction. The aquatic species removed from the project area are to be released at an available location, with similar habitat, outside of the work area.</i> • <i>Access for work under the bridge will be from the southeast quadrant. This will require grading a road down to the channel bottom, avoiding as much as possible the trees on the bank.</i> • <i>Only the minimum amount of vegetation will be pruned or removed that is necessary to construct the project. All trees and shrubs that must be removed will be cut at or just below grade to facilitate plant regrowth.</i> • <i>The diversion dams will be constructed with imported clean river-run material, with a filter fabric placed on the face of the downstream diversion dam. Gravel placed in the creek for any reason will be the minimum necessary.</i> • <i>The culverts used for the work pad will be sized in such a manner as to not significantly back-up water upstream or significantly increase the velocity of the water at the outlet. Culvert capacity will be designed to sufficiently maintain the preexisting creek velocity or 1.3 feet per second, whichever is greater, during expected normal flow.</i> • <i>A sediment stilling basin will be constructed upstream from the bridge if necessary to dewater the work area at pier 2. No pruning or vegetation removal will be allowed during excavation for the sediment stilling basin. The excavated material will be stockpiled for later filling in of the basin following project completion. If a sediment stilling basin is not used, all water collected from the CIDH drilling operations will be pumped upslope out of the channel and either stored in tanks to be hauled off site, or disposed on land in such a manner that the water will not flow back into Sonoma Creek.</i> • <i>The County will require the contractor to use a drilling mud and slurry seal that is non-toxic to aquatic life. If it is determined that a non-toxic material for either of these applications is not feasible for this project, then all drilling muds and fluid within all drilled holes will be contained on site in tanks, removed from the project area, and disposed of in a permitted manner.</i> • <i>Following construction, all of the sediment accumulated in the stilling basin will be removed and disposed of in a permitted manner.</i> • <i>The County will not allow any motorized equipment to be left within the Porter Creek Channel (top of bank to top of bank) overnight, unless a container or similar method is securely in-place beneath the equipment to capture any fluid leakage. All contained fluids will be disposed of in a permitted manner.</i> • <i>Following construction, the sediment stilling basin will be filled with previously excavated material and re-graded to match existing topography. The access road down the bank will be re-graded to match pre-project topography, with erosion control measures applied to the slope. All other disturbed areas will be regraded to match existing topography. Appropriate erosion control measures will be used on all disturbed areas to minimize the potential for erosion, theses may include hydro seeding, erosion control blankets, or other appropriate BMP's based upon the conditions of the site.</i> • <i>All excavated materials will be removed from the creek channel and disposed of in a permitted manner.</i>
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- *There will not be any motorized equipment left overnight within the Sonoma Creek channel, top of bank to top of bank.*
- *No equipment, including concrete trucks, will be washed in the creek or in a place where wash water could drain into the creek.*
- *Water that comes into contact with wet concrete and has a pH greater than 9.0 must be pumped to a truck or by hose for upland disposal or treatment (not within the banks of any waterway).*
- *All equipment refueling and maintenance will occur outside the creek channel (bank to bank). In order to minimize the potential for spills and leaks of fluids from all other equipment working within the creek channel, an Accidental Spill Prevention and Cleanup Plan will be prepared. This plan will include requiring spill control absorbent material to be present on site and available at all times.*
- *There shall be no equipment operated within the flowing water of Sonoma Creek.*
- *Following project construction, all equipment and materials will be removed from the creek.*

Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☐ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

- | | |
|----------|---|
| 5 | <p><i>Only the minimum amount of vegetation shall be pruned or removed that is necessary to construct the project. Where possible, vegetation shall be tied back in lieu of cutting. Native vegetation that must be removed shall be cut at or above grade to facilitate re-growth. Any pruning that is done, including for utility line clearance, shall conform to the American National Standard for Tree Care Operation Tree, Shrub, and Other Woody Plant Maintenance Standard Practices, Pruning (ANSI A300 Part 1)-2008 Pruning, and the companion publication Best Management Practices: Tree pruning (ISA 2008). Roots shall only be unearthed when necessary.</i></p> |
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☒ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

6	<i>All SOD host species plants and plant parts that are pruned or cut at the project site as part of this project must be disposed of within the limits of Sonoma County. Foliage that is chipped on site shall not be placed where it can enter Sonoma Creek.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☒ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

7	<i>The standard construction contract language requires the contractor to comply with all laws and regulations (Caltrans Standard Specifications, section 7-1.01). The contractor shall be made aware that, If there is removal of any trees on private property in conjunction with this project, it shall be in accordance with the following: 1) the County Tree Protection and Replacement Ordinance; 2) the Sonoma County Valley Oak Stewardship Guidelines for valley oak trees removed within the Valley Oak Habitat combining district; and 3) the Heritage or Landmark Tree Ordinance. Enforcement of this measure shall be through a combination of the DTPW and PRMD staff.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☒ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

8	<i>All surplus soils that cannot be used on the project site shall be disposed of at an acceptable disposal site. If any areas outside the project site are used for disposal or stockpiling of soil or other materials, the contractor shall be required to demonstrate that the site has all the required permits, including, if applicable, a grading permit. The contractor shall notify the California Department of Fish and Game of the intent to use the site, and the Sonoma County Permit and Resource Management Department to determine if a grading permit is required. The contractor shall be required to provide evidence to the County that the site does not affect wetlands under the jurisdiction of the Army Corps of Engineers, or that the site has the appropriate permit from the Army Corps of Engineers. Surplus concrete rubble or pavement shall either be disposed of at an acceptable and legally permitted disposal site or taken to a permitted concrete and/or asphalt recycling facility.</i>
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Time of Implementation: Design, Construction

- Method:
- ☐ Incorporated into the project design
 - ☐ Included in the project plans and specifications (contractor will implement)
 - G County forces
 - G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

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|----------|--|
| 9 | <p><i>The County will only allow trees to be removed from the project site after September 1, and before February 15 of the following year, when bird nesting is most likely avoided, unless a qualified biologist has inspected the site and determined that the tree removal will not affect nesting birds.</i></p> <p><i>Beginning March 1st, the County shall install a bird barrier netting or other material to the underside of the entire bridge structure sufficient to prevent birds from nesting underneath areas where disturbance is to occur. The bird barrier shall be inspected every two weeks and repairs made as needed from installation until September 1st or until no longer needed. The netting shall be removed as needed to construct the project. If the project is not completed during the construction season following installation of the barrier, this mitigation will be implemented again beginning March 1st of the next year.</i></p> |
|----------|--|

Time of Implementation: Design, Construction

- Method:
- ☐ Incorporated into the project design
 - ☐ Included in the project plans and specifications (contractor will implement)
 - G County forces
 - G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

10	<i>If archaeological materials are discovered during project construction, construction will cease in the immediate vicinity of the find until a qualified archaeologist is consulted to determine the significance of the find, and has recommended appropriate measures to protect the resource. Further disturbance of the resource will not be allowed until those recommendations deemed appropriate by the County have been implemented.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
 ☐ Included in the project plans and specifications (contractor will implement)
 G County forces
 G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

11	<i>In the event that human remains are unearthed during construction, state law requires that the County Coroner be notified to investigate the nature and circumstances of the discovery. At the time of discovery, work in the immediate vicinity would cease until the Coroner permitted work to proceed. If the remains were determined to be prehistoric, the find would be treated as an archaeological site and the mitigation measure described in item 5(b) above would apply.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☐ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

12	<p><i>If construction of new or filling of existing roadside ditches is to occur after October 1, the area worked on shall be isolated by straw wattles or gravel dams placed in the ditch up and downstream of the drainage ditches being worked on to filter water and prevent sediment laden water from traveling out of the work area. Following completion of all ditch work, the straw wattles or gravel shall be removed and straw shall be placed on the banks of all new roadside ditches within the project limits.</i></p> <p><i>Following construction or by October 15 of any construction year, the County shall require that all disturbed areas within the creek channel (top of bank to top of bank) shall be regraded to match adjacent contours. Jute mesh type or equivalent matting shall be placed over disturbed soils, and installed per the manufacturer's instructions. This matting shall extend a minimum of two feet beyond the edge of the disturbed areas, and shall be installed from the toe of slope up beyond the top of bank on both sides, and where soil has been replaced to eliminate the access roads. This matting shall have either no plastic incorporated into it, or any incorporated plastic shall be a photo-degradable type which breaks down in 1 - 2 years. In no case shall the entire mat be constructed of plastic. In addition, fiber rolls shall be fastened along the top of bank on both sides of the channel to intercept sheet flows of water from upland areas. Substitution of materials or erosion control methods shall require prior approval from PRMD and DTPW.</i></p>
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Time of Implementation: Design, Construction

- Method:
- ☐ Incorporated into the project design
 - ☐ Included in the project plans and specifications (contractor will implement)
 - ☒ County forces
 - ☐ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

13	<i>The project site shall be inspected following the first heavy rain, during the middle of the rainy season and at the end of the rainy season following construction. During each visit, areas of significant erosion or erosion control device failure shall be noted and appropriate remedial actions taken.</i>
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Time of Implementation: Design, Construction

- Method:
- ☒ Incorporated into the project design
 - ☒ Included in the project plans and specifications (contractor will implement)
 - ☒ County forces
 - ☐ Other (specify) - implemented by PRMD – Environmental Review Division staff

Environmental Specialist certifies that this mitigation measure has been implanted following project construction.

Comments:

14	<p><i>By October 1, a wood fiber erosion control blanket (Curlex 1 by American Excelsior Company or equivalent) shall be applied to the disturbed areas up and downstream of the new drainage ditches along Watmaugh Road. The blanket would cover from two feet beyond the top of bank on both sides of the ditch and would cover the entire bottom and banks of the ditch. Installation would be per the Manual of Standards for Erosion and Sediment Control Measures (Association of Bay Area Governments, May 1995) or the method recommended by the manufacturer. This blanket would have either no plastic incorporated into it, or, if the blanket does have plastic in it, the plastic would be a photo-degradable type which breaks down in 1 - 2 years.</i></p> <p><i>Following construction or by October 31 of any construction year, the County shall require that all disturbed areas outside the creek channel will be hydroseeded. The hydro-seed mix shall not contain fertilizer.</i></p>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☐ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

15	<p><i>Winter work activities (after October 31) may occur outside the channel but vehicular access shall be restricted to previously paved or rocked surfaces, and work shall include only those activities which do not result in the disturbance of new soil.</i></p> <p><i>All stockpiled materials and debris shall be removed from the site on or before October 31 of any construction year.</i></p> <p><i>Substitution of materials or construction methods shall require prior approval from PRMD and DTPW.</i></p> <p><i>The project site shall be inspected by County staff after storm events that produce 1 inch of rain or greater within 24 hour period in the Santa Rosa area. During every inspection, areas of significant erosion or erosion control device failure shall be noted and appropriate remedial actions will be taken as soon as practical. If erosion control measures appear to be effective for three consecutive site inspections following 1-inch storm events, then site inspections shall only be required following storm events that result in 2 inches of rain, or greater, within a 24-hour period in the Santa Rosa area. At the end of the rainy season, County staff shall reinspect the site and evaluate the effectiveness of the erosion control measures that were used. If there were problem areas at the site, recommendations shall be made to improve methods used in subsequent projects.</i></p>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☐ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

16	<i>The construction contract shall require that any storage of flammable liquids be in compliance with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification (or the functional equivalent) for the protection of surface waters. In the event of a spill of hazardous materials the Contractor shall immediately call the emergency number 9-1-1 to report the spill, and shall take appropriate actions to contain the spill to prevent further migration of the hazardous materials to stormwater drains or surface waters.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☐ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

17	<i>At any time during the construction year that work is temporarily suspended due to potential flooding of the project site, all storage containers containing hazardous materials, including fuel, shall be removed from the project site until work is resumed. All chemical toilets shall be on trailers (or otherwise mobile) and shall be moved outside the FEMA 100-yr floodplain along with construction equipment until work is resumed.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☐ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

18	<p><i>The County shall not allow any equipment to be operated in the flowing waters of Sonoma Creek at any time.</i></p> <p><i>The construction contract shall require that any storage of flammable liquids be in compliance with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification (or the functional equivalent) for the protection of surface waters. In the event of a spill of hazardous materials, the contractor shall immediately call the emergency number 9-1-1 to report the spill, and shall take appropriate actions to contain the spill to prevent further migration of the hazardous material to the surface waters of Sonoma Creek.</i></p> <p><i>The County shall not allow any motorized equipment (besides the stationary crane drill rig attached) to be left within the Sonoma Creek channel (top of bank to top of bank) overnight. A container or similar method shall be securely placed beneath the crane to catch any fluid leakage. All contained fluids shall be disposed of in a permitted manner.</i></p> <p><i>To minimize fluid leaks during operation, refueling, and maintenance of stationary equipment (crane with drill rig attached), spill control absorbent material shall be in place underneath this equipment at all times to capture potential leaks.</i></p> <p><i>All refueling and maintenance of equipment (other than the stationary crane) shall occur outside the channel of Sonoma Creek (top of bank to top of bank). Receptacles containing fuel, oil, or any other substance that may adversely affect aquatic resources shall be stored outside of the channel. Any hazardous chemical spills shall be cleaned up immediately.</i></p> <p><i>Prior to construction, the contractor shall be required to prepare an Accidental Spill Prevention and Cleanup Plan. This plan shall include requiring spill control absorbent material to be present on site and available at all times.</i></p>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
 ☐ Included in the project plans and specifications (contractor will implement)
 G County forces
 G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

- | | |
|-----------|--|
| 19 | <i>No equipment, including concrete trucks, shall be washed within the channel of the creek, or where wash water could flow into the channel. Prior to project construction, the contractor shall establish a concrete washout area for concrete trucks in a location where wash water will not enter Sonoma Creek. The washout area shall follow the practices outlined in the San Francisco Bay Regional Water Quality Control Board Erosion and Sediment Control Field Manual (revised 2002) or equivalent guidelines. Substitution of the designated concrete washout area or methods shall require prior approval from PRMD and the DTPW.</i> |
|-----------|--|

Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
 ☐ Included in the project plans and specifications (contractor will implement)
 G County forces
 G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

20	<i>If drilling of CIDH piles is conducted, the County shall require the contractor to use a drilling mud and slurry seal that is non-toxic to aquatic life for all drilling activities. All drilling muds and fluid within all drilled holes shall be contained on site in tanks, removed from the project area, and disposed of in a permitted manner.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
 ☐ Included in the project plans and specifications (contractor will implement)
 G County forces
 G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

21	<i>If drilling of CIDH piles is conducted, the County shall require that all spoils materials from drilled pier holes be removed from the Sonoma Creek channel and adjacent FEMA 100-yr floodplain by October 15, and disposed of in a permitted manner.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
 ☐ Included in the project plans and specifications (contractor will implement)
 G County forces
 G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

22	<p><i>Construction activities for this project shall be restricted as follows:</i></p> <p><i>(a) All internal combustion engines used during construction of this project will be operated with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code.</i></p> <p><i>(b) Except for actions taken to prevent an emergency, or to deal with an existing emergency, all construction activities shall be restricted to the hours of 7:00 am and 7:00 pm on weekdays and 9:00 am and 5:00 pm on Saturday's and no work on Sunday's or holidays. Only work that does not require motorized vehicles or power equipment shall be allowed on Sundays or holidays (1). If work outside the times specified above becomes necessary due to an emergency, the resident engineer shall notify the PRMD Environmental Review Division as soon as practical.</i></p>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
 ☐ Included in the project plans and specifications (contractor will implement)
 G County forces
 G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

23	<i>Existing traffic volumes crossing Watmaugh Bridge shall be temporarily detoured to Leveroni Bridge until construction of the replacement bridge on Watmaugh Road is completed.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
G County forces
G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

24	<i>If lengthy delays are anticipated, signs shall be placed at all entrances to the project site and on major intersecting roads, including Leveroni Bridge to notify motorists that traffic will be subject to delay.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
G County forces
G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

25	<i>Traffic safety guidelines compatible with Section 12 of the Caltrans Standard Specifications, "Construction Area Traffic Control Devices" shall be followed during construction. Project plans and specifications shall also require that adequate signing and other precautions for public safety be provided during project.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
 ☐ Included in the project plans and specifications (contractor will implement)
 G County forces
 G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

26	<p><i>Local emergency services shall be notified by DTPW prior to construction to inform them of traffic delays, proposed construction schedule, and detour routes.</i></p> <p><i>The County shall require the contractor to provide for passage of emergency vehicles to the project site and neighboring properties at all times.</i></p> <p><i>The County shall require the contractor to maintain access to all parcels during project construction.</i></p>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☐ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

27	<p><i>The proposed replacement bridge design shall include new period correct lattice rails, and the other visually prominent elements of the existing bridge shall be incorporated into the proposed bridge to the degree feasible without compromising the structural integrity of project. Where using existing bridge components would not be practical, new materials shall be treated to blend with reused bridge elements and the surrounding rural community.</i></p>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
☐ Included in the project plans and specifications (contractor will implement)
☒ County forces
☐ Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

28	<p><i>All improvement and grading plans and the specifications for the project shall have the following note printed on plan sheets: All improvement and grading plans shall have the following note printed on plan sheets: "In the event that archaeological resources such as pottery, arrowheads, midden or culturally modified soil deposits are discovered at any time during grading, scraping orexcavation within the property, all work shall be halted in the vicinity of the find and County PRMD - Project Review staff shall be notified and a qualified archaeologist shall be contacted immediately to make an evaluation of the find and report to PRMD. PRMD staff may consult and/or notify the appropriate tribal representative from tribes known to PRMD to have interests in the area. Artifacts associated with prehistoric sites include humanly modified stone, shell, bone or other cultural materials such as charcoal, ash and burned rock indicative of food procurement or processing activities. Prehistoric domestic resources include hearths, firepits, or house floor depressions whereas typical mortuary resources are represented by human skeletal remains. Historic artifacts potentially include all by-products of human land use greater than 50 years of age including trash pits older than fifty years of age. When contacted, a member of PRMD Project Review staff and the archaeologist shall visit the site to determine the extent of the resources and to develop and coordinate proper protection/mitigation measures required for the discovery. PRMD may refer the mitigation/protection plan to designated tribal representatives for review and comment. No work shall commence until a protection/mitigation plan is reviewed and approved by PRMD - Project Review staff. Mitigations may include avoidance, removal, preservation and/or recordation in accordance with California law.</i></p> <p><i>If human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and PRMD staff, County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and the appropriate provisions of the California Government Code and California Public Resources Code will be followed."</i></p>
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Time of Implementation: Design, Construction

- Method:
- ☐ Incorporated into the project design
 - ☐ Included in the project plans and specifications (contractor will implement)
 - G County forces
 - G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

29	<i>All improvement and grading plans and the specifications for the project shall have the following note printed on plan sheets: "If human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and PRMD staff, County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and the appropriate provisions of the California Government Code and California Public Resources Code will be followed."</i>
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Time of Implementation: Design, Construction

- Method:
- ☐ Incorporated into the project design
 - ☐ Included in the project plans and specifications (contractor will implement)
 - G County forces
 - G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments:

30	<i>Prior To project construction, a Traffic Management Plan (TMP) will be prepared to Caltrans Standard Specifications. "Manual on Uniform Traffic Devices." In addition, "Construction Area Traffic Control Devices" shall be followed during construction. Project plans and specifications shall also require that adequate signing and other precautions for public safety be provided during project.</i>
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Time of Implementation: Design, Construction

Method: ☐ Incorporated into the project design
 ☐ Included in the project plans and specifications (contractor will implement)
 G County forces
 G Other (specify)

Design Engineer certifies that this mitigation measure has been incorporated into the project.

Comments:

Construction Engineer certifies that this mitigation measures was implemented and monitored during construction.

Comments: