STATE OF CALIFORNIA—THE RESOURCES AGENCY GRAY DAVIS, *GOVERNOR*

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE AND TDD (415) 904- 5200
FAX (415) 904- 5400

Th13a

Date CDP Filed:	March 14, 2003
49th Day:	May 2, 2003
180th Day:	September 10, 2003
Staff:	CLM-SF
Staff Report:	March 27, 2003
Hearing Date:	April 10, 2003

STAFF REPORT: REGULAR CALENDAR

APPLICATION FILE NO.:	**2-01-14-A**
APPLICANT:	**Sonoma County Department of Transportation and Public Works**
PROJECT LOCATION:	Moscow Road Bridge, at River Mile 5 on the Russian River, near the town of Duncans Mills, Sonoma County.
PROJECT DESCRIPTION:	Application of Sonoma County Transportation and Public Works Department to amend permit for seismic upgrade of Moscow Road bridge across Russian River in order to allow for the use of drilling muds in construction, reduction of fill encroachment into the Russian River, the construction of an access road down the south bank of the river at Moscow Road and River Road, and change in timing of construction to 2003.
LOCAL APPROVALS:	Sonoma County Permit and Resource Management Department – General Plan Consistency Determination, September 8, 1999. Sonoma County CEQA exemption – December 18, 2001.
SUBSTANTIVE FILE DOCUMENTS:	See Appendix A

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

This staff report evaluates an amendment to a coastal development permit allowing the seismic retrofit of the Moscow Road Bridge, which crosses the Russian River approximately five river miles inland from the mouth at the town of Duncans Mills, in Sonoma County. The proposed project is located within the tidally-influenced reach of the Russian River and is within the retained jurisdiction of the Coastal Commission.

The originally approved development involved constructing a gravel work pad within the river channel requiring the river to be placed in culverts during construction. Gravel placed in the river for the work pad would be imported to the site and would be left in the river to enhance fish habitat, pursuant to recommendations from state and federal wildlife agencies. The project

changes proposed in the amendment application include an extension of time allowed for the project, from May 15 to October 15, 2003, the use of drill muds, construction of a temporary access road down the south bank of the river, and a reduction of fill in the river allowing an open channel to maintain river flow. The construction of an access road on the south bank of the river would make possible the movement of equipment on the south bank of the river while eliminating the need for placing the river into culverts, as originally approved, although the revised project would temporarily disturb an additional 500 square feet of riparian habitat.

With regard to special conditions placed upon the originally approved development, staff recommends that the Commission delete **Special Condition 1** and adopt a new **Special Condition 1** described below, retain **Special Conditions 2 and 3**, revise **Special Condition 6** and to reflect the submittal of a spill prevention, containment and cleanup plan, retain **Special Conditions 7** and **8**, change the time period in **Special Condition 4, 5 and 9** to correspond with revised plans and add **Special Conditions 10** and **11**.

Staff recommends that the Commission approve the development as amended and conditioned. **Condition 1** would conscribe the use of drill muds to a spill prevention, containment and cleanup plan. **Special Condition 2** requires water quality monitoring to ensure construction is not resulting in high pH levels in the river. **Special Condition 3** requires the permittee to use additional water quality Best Management Practices (BMPs) to minimize project impacts. **Special Condition 4** requires impacts to riparian vegetation be minimized and that areas where vegetation is removed be monitored and replanted as necessary. **Special Condition 5** would minimizes impacts to cliff swallows and bats that use the underside of the bridge for nesting and roosting. **Special Condition 6** would require that the applicant undertake development in accordance with the approved spill prevention, containment and cleanup plan. **Special Condition 7** requires the permittee to provide and maintain a portage around the construction area to allow ongoing use of the river by boaters. **Special Condition 8** limits the amount of riprap placed in the river channel to the minimum needed for the project. **Special Condition 9** ensures limits on the timing of construction. **Special Condition 10** would require the permittee to provide an erosion control plan to reduce the amount of sediment runoff into the river. **Special Condition 11** would require the applicant to restore and revegetate the temporary access road upon completion of construction.

Staff recommends the Commission find that, as conditioned, the development as amended will comply with Coastal Act Sections 30231 and 30240 (biological resources), 30232 (spill prevention, containment, and cleanup), 30233 (filling in coastal waters), 30210, 30211, 30214, 30220, and 30224 (public access and recreation), 30251 (scenic and visual qualities), and 30253 (hazard prevention).

2.0 STAFF RECOMMENDATION

Coastal Development Permit Application 2-01-14-A

The staff recommends conditional approval of the permit amendment application.

Motion:

I move that the Commission approve Coastal Development Permit Amendment 2-01-14-A subject to conditions specified below.

Staff recommend a YES vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of Commissioners present.

Resolution:

The Commission hereby approves the Coastal Development Permit Amendment and adopts the findings set forth below on grounds that the development as amended and conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

2.1 Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the applicant or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land: These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

2.2 *Special Conditions*

Note: Special Conditions 2, 3, 7 and 8 of CDP 2-01-14 are unchanged and shall remain in effect. Special Condition 1 shall be replaced with a new Special Condition 1. Special Conditions 4, 5, 6 and 9 shall be revised as set forth below. Special Conditions 10 and 11 shall be added.

~~1. Use of Drill Muds Prohibited: The project as currently proposed does not include the use of drill muds. If the permittee or contractor proposes to use drill muds, the permittee shall submit for Commission consideration an application to amend this permit to allow the use of drill muds.~~

1. Management and Spill Prevention Plan for Drill Muds:

a) The permittee must immediately contain used slurry and dispose of it offsite following use. The Super Mud™ slurry shall be disposed of in accordance with all applicable regulations. Notwithstanding the above, under no circumstances shall the slurry be discharged or disposed of directly into a stormdrain, open ditch, or surface water. In addition, no slurry shall be disposed of within 50 feet of a stormdrain, open ditch, or surface water.

b) The permittee shall undertake development in strict accordance with the approved Drill Muds Spill Prevention, Containment and Cleanup Plan submitted as part of the permit amendment application on March 6, 2003. No changes to the approved plans shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally required.

2. Water Quality Monitoring:

a) The permittee shall ensure that construction work does not result in pH levels in the river exceeding 9.0. The permittee shall monitor pH levels in the water column immediately upcurrent and downcurrent of the project area at all times that concrete is being poured within the wetted river channel (i.e., at Pier 9 and at other locations if they are within the active channel area). Monitoring shall be done at least once within the hour before concrete is poured (to obtain background pH levels) and at least once per hour during each concrete pour. The permittee shall send the results of each day's monitoring via facsimile to the Coastal Commission's North Central Coast office no later than the end of the day of each concrete pour. Each submission shall include a site plan showing the sampling locations.

b) If, after reviewing monitoring results submitted by the permittee, the Executive Director determines that the permittee's Best Management Practices are effectively preventing pH levels from exceeding 9.0, the Executive Director may waive further pH monitoring requirements.

c) If any monitoring result shows a pH of 9.0 or greater, all construction shall cease and shall not recommence except as provided in subsection (d) below. The permittee shall also immediately notify the Commission's North Central Coast Office.

d) Before any construction can recommence following a monitoring result which shows a pH level of 9.0 or greater, the permittee shall submit a supplemental water quality plan for the review and approval of the Executive Director.

i) If the Executive Director approves the supplemental water quality plan and determines that the supplemental plan's recommended changes to the proposed development or mitigation are *de minimus* in nature and scope, construction may recommence.

ii) If the Executive Director approves the supplemental water quality plan but determines that the changes therein are not *de minimus*, construction may not recommence until after an amendment to this permit is approved by the Commission.

3. Water Quality Best Management Practices (BMPs): In addition to the conditions in the water quality certification and streambank alteration permit, the permittee shall implement the following BMPs to ensure acceptable water quality is maintained during project construction:

a) Other than the drill rig, machinery shall not operate directly in the waters of the Russian River.

b) Any materials that fall into the river shall be immediately collected and properly disposed of. All debris and trash at the project site shall be collected and disposed of in trash receptacles located above the channel at the end of each workday.

4. Riparian Vegetation: Prior to commencement of any development, the permittee shall provide to the Executive Director a detailed vegetation survey, including photographs, prepared by a qualified professional showing the location and types of riparian vegetation at the project site, including percent cover, height, and age-class. No later than 30 days after construction is completed and in no case later than November 30, ~~2002~~ 2003, the permittee shall provide to the Executive Director a site plan showing the areas where vegetation was pruned or removed during staging and project construction. One year following project completion, and in no case later than November 30, ~~2003~~ 2004, the permittee shall submit to the Executive Director a vegetation survey, including photographs, prepared by a qualified professional documenting the extent and state of revegetation of all areas disturbed by project activities. If the disturbed areas are not fully revegetated to the satisfaction of the Executive Director within one year following completion of work, the permittee shall replant the affected areas with native riparian species. After replanting these affected areas, the permittee shall continue to monitor these areas for a minimum of one additional year following replanting to document site restoration. The permittee shall submit a monitoring report with photographs to the Executive Director one year following replanting. The permittee shall replant the areas

and/or undertake other appropriate measures necessary to ensure full restoration of any areas disturbed by the permitted development.

5. Biological Resources – Cliff swallows and bats:

a) Areas on the underside of the bridge that may be used by cliff swallows for nesting shall be blocked with netting or other materials before construction begins. These materials shall be adequate to prevent the swallows from using the bridge for nesting and shall be maintained throughout construction or until the end of nesting season. Materials used shall be removed as soon as feasible after project construction is completed and in no case later than October 30th, ~~2003~~ 2004 to allow the birds to use the nest sites the following year.

b) Any nets used shall be placed and maintained to minimize disturbance to bats using the bridge for night roosting. Nets shall be ¾" mesh or smaller and shall be installed so that they do not hang below the profile of the bridge supports.

c) The permittee shall ensure that a qualified biologist is at the project site during the first two nights after materials are placed, added, or moved to a different location in order to retrieve and release any bats that may be caught.

6. Spill Prevention, Containment, and Cleanup Plan:

a) ~~Prior to issuance of this CDP, the applicant shall submit for review and written approval by the Executive Director a detailed plan to prevent, contain, and cleanup any fuel, oil, or hazardous material spills. At a minimum, the plan shall describe the spill equipment to be stored at the project site and the measures to be taken should a spill occur.~~

b) ~~The permittee shall undertake development in accordance with the approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the approved plans shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally required.~~

The permittee shall undertake development in accordance with the approved spill prevention, containment and cleanup plan submitted on February 4, 2003 as part of the permit amendment application. No changes to the approved plans shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally required.

7. Public Access – Portage for Boating:

a) Prior to issuance of this CDP, the applicant shall submit for the Executive Director's review and approval a detailed plan describing the portage to be provided during the project. The plan shall include diagrams showing the approximate location of the portage during various stages of the project and a description of signs and buoys to be placed upriver and downriver of the project site warning boaters of the project.

b) The permittee shall undertake development in accordance with the approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the approved plans shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally required.

8. Placing Riprap: No more than 350 cubic yards of riprap may be placed during project construction, and it shall be placed only within the area of existing riprap on the south river bank and at the base of Pier 9 as generally depicted on Exhibit 3 (Figure 5 of the November 27, 2000 *Natural Environment Study Report* submitted with the CDP application).

9. Project Timing: Project construction shall occur only from May 15 until October 15, ~~2002~~ 2004, and project construction within the active river channel shall occur only from June 15 until October 15, ~~2002~~ 2003. If the permittee proposes to work outside of these allowable work windows, the permittee shall submit for Commission consideration an application to amend this permit.

10. Erosion Control Plan:

a) Prior to issuance of the coastal development permit, the applicants shall provide, for the review and approval of the Executive Director, an Erosion Control Plan to reduce erosion and, to the maximum extent practicable, retain sediment on-site during and after construction. The plan shall be designed to minimize the potential sources of sediment, control the amount of runoff and its ability to carry sediment by diverting incoming flows and impeding internally generated flows, and retain sediment that is picked up on the project site through the use of sediment-capturing devices. The plan shall also limit application, generation, and migration of toxic substances, ensure the proper storage and disposal of toxic materials, apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters. The Erosion Control Plan shall incorporate the Best Management Practices (BMPs) specified below.

1. Erosion & Sediment Source Control

a. Sequence construction to install sediment-capturing devices first, followed by runoff control measures and runoff conveyances. Land clearing activities should only commence after the minimization and capture elements are in place.

b. Time the clearing and grading activities to avoid the rainy season (October 15 through April 30).

c. Minimize the area of bare soil exposed at one time (phased grading).

d. Clear only areas essential for construction.

e. Within five days of clearing or inactivity in construction, stabilize bare soils through either non-vegetative BMPs, such as mulching or vegetative erosion control methods such as seeding. Vegetative erosion control shall be established within two weeks of seeding/planting.

f. Construction entrances should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.

g. Control wind-born dust through the installation of wind barriers such as hay bales and/or sprinkling. Any sprinkling should be performed as not to cause excessive runoff.

h. Soil and/or other construction-related material stockpiled on site shall be placed a minimum of 75 feet from all wetlands and drain courses. Stockpiled soils shall be covered with tarps at all times of the year.

i. Excess fill shall not be disposed of in the Coastal Zone unless authorized through either an amendment to this coastal development permit or a new coastal development permit.

2. Runoff Control and Conveyance

a. Intercept runoff above disturbed slopes and convey it to a permanent channel or stormdrains by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.

b. Shorten the length of bare slopes by installing fiber rolls at regular intervals along the contours.

c. Provide protection for runoff conveyance outlets by reducing flow velocity and dissipating flow energy.

3. Sediment-Capturing Devices

a. Install stormdrain inlet protection that traps sediment before it enters the storm sewer system. This barrier could consist of filter fabric, straw bales, gravel, or sand bags.

b. Install sediment traps/basins at outlets of diversions, channels, slope drains, or other runoff conveyances that discharge sediment-laden water. Sediment traps/basins shall be cleaned out when 50% full (by volume).

c. Use silt fence and/or vegetated filter strips to trap sediment contained in sheet flow. The maximum drainage area to the fence should be 0.5 acre or less per 100 feet of fence. Silt fences should be inspected regularly and sediment removed when it reaches 1/3 the fence height. Silt fences shall never be placed on slopes. Vegetated filter strips should have relatively flat slopes and be vegetated with erosion-resistant species.

4. Chemical Control

   a. Store, handle, apply, and dispose of pesticides, petroleum products, and other construction materials properly.

   b. Establish fuel and vehicle maintenance staging areas located away from all drainage courses, and design these areas to control runoff.

   c. Develop and implement spill prevention and control measures.

   d. Provide sanitary facilities for construction workers.

   e. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff. Thinners or solvents should not be discharged into sanitary or storm sewer systems. Washout from concrete trucks should be disposed of at a location not subject to runoff and more than 50 feet away from a stormdrain, open ditch or surface water.

   f. Provide adequate disposal facilities for solid waste, including excess asphalt, produced during construction.

   g. Develop and implement nutrient management measures. Properly time applications, and work fertilizers and liming materials into the soil to depths of 4 to 6 inches. Reduce the amount of nutrients applied by conducting soil tests to determine site nutrient needs.

b) The applicant shall undertake development in accordance with the final erosion control plans approved by the Executive Director. No proposed changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required. The applicant shall be fully responsible for advising construction personnel of the requirements of the Erosion Control Plan.

c) Erosion Control Maintenance. All of the above described erosion control measures shall be maintained pursuant to the following requirements.

   1. All BMP traps/separators and/or filters shall be cleaned at minimum prior to the onset of the storm season and no later than October 15 each year.

   2. Sediment traps/basins shall be cleaned out at any time when 50% full (by volume).

   3. Sediment shall be removed from silt fences at any time when it reaches 1/3 the fence height.

   4. All pollutants contained in BMP devices shall be contained and disposed of in an appropriate manner.

   5. Non-routine maintenance activities that are expensive but infrequent, such as detention basin dredging, shall be performed on as needed based on the results of the monitoring inspections described above.

d) Monitoring. Throughout the construction period, the applicants shall conduct regular inspections of the condition and operational status of all structural BMPs required by the approved Erosion Control Plan. The applicant shall conduct inspections prior to the start of the rainy season (no later than October 15), after the first storm of the rainy season,

and monthly thereafter until April 30 for the duration of the project construction period. The pre-rain inspection results shall be reported in writing to the Executive Director no later than October 31 and those from during the rainy season shall be reported in writing to the Executive Director by May 15. Major observations to be made during inspections and reported to the Executive Director shall include: locations of discharges of sediment or other pollutants from the site; BMPs that are in need of maintenance; BMPs that are not performing, failing to operate, or inadequate; and locations where additional BMPs are needed. Authorized representatives of the Coastal Commission and/or the County of Sonoma shall be allowed to enter the property as needed to conduct on-site inspections throughout the construction period.

11. Restoration Plan

a) Prior to issuance of the coastal development permit, the applicants shall provide, for the review and approval of the Executive Director, a restoration plan to regrade and re-contour the south bank of the Russian River in the area disturbed by the construction of the access road within 90 days of project completion and no later than October 15, 2003. The plan shall include detailed grading and planting plans adequate to restore the temporary access road to match the natural contours of the adjacent river bank and to establish native riparian and other suitable native plant species on the restored bank.

b) All work shall be conducted in accordance with the approved Restoration Plan. No changes to the approved plans shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally required.

3.0 PROJECT DESCRIPTION, SETTING, AND BACKGROUND

3.1 Setting

The project is on the Russian River approximately five river miles inland from the mouth and within the range of tidal influence. The river channel in this area is relatively flat and meandering. Flows during the proposed summer and early fall construction period average from 150 to 250 cubic feet per second at fairly low velocity, in the range of 3 to 4 feet per second. Habitat types at and near the project site include the open river channel, riparian forest (primarily willow/alder/bigleaf maple), annual grasslands, landscaped areas, and ruderal/disturbed sites. Naturally occurring sand bars often form at the river mouth during periods of low river flow or under various ocean conditions and may sometimes block the entire river mouth. During some periods of low flow or river mouth closures, water in the river can move upchannel due to wind or tidal conditions.

3.2 Description of Previously Approved Development

In March 6, 2002, the Commission granted coastal development permit 2-01-14 to Sonoma County Transportation and Public Works Department for the seismic upgrade of an existing two-lane bridge over the Russian River at Duncans Mills, Sonoma County (**Exhibit 1**). The bridge is a two-lane reinforced concrete structure approximately 815 feet long and 34 feet wide supported on nine concrete piers. The project included constructing a gravel work pad across the river channel, drilling ten holes for new bridge piers using a "cast-in-drilled-hole" (CIDH) technique, and placing steel armoring around five existing piers (**Exhibit 3**). The County expected work to take up to five months, from May 15 to October 15, depending on river conditions.

Major project elements included placing ten new CIDH concrete piers in the river channel to provide additional support for the bridge, armoring three other existing bridge piers, and placing riprap at the base of the bridge pier nearest the south river bank (Pier 9) and along that bank below the bridge. The CIDH work would involve drilling ten 60- to 72-inch diameter holes in the riverbed to a depth of 40 to 60 feet at Piers 3, 5, and 9 and at the abutments at each end of the bridge, and pouring concrete within steel casings placed in the holes. The pier armoring would involve placing steel casings around Piers 2, 4, 6, 7, and 8. The riprap work would involve placing about 350 cubic yards of riprap at the base of Pier 9 and at the bridge abutment on the south bank to deter undercutting.

The proposed construction method would involve constructing a gravel work pad in the river channel to allow access under the bridge for the drilling equipment, bulldozers, trucks, and other equipment. The work pad would require about 2500 cubic yards of clean, river-run gravel to be imported to the project site. The applicant would extend the gravel pad out from the north bank of the river in at least three stages – first, from the north portion of the river channel near Pier 6 to Pier 7 to allow CIDH drilling, then to Pier 8, and finally across the full width of the channel to allow drilling at Pier 9 and riprap placement along the river's south bank. As the applicant built the gravel pad, culverts would be placed to allow the river to flow through the work area. The gravel pad would have a maximum width of approximately 37.5 feet on either side of the bridge's centerline and would be about two to four feet above water level. The work pad would also provide access to Piers 6, 7, and 8 to allow the applicant to install steel casings around those piers. Only Piers 7 through 9 are within the summer low-flow channel area; the rest are generally above the level of the river's summer flows. Associated work would include excavating a temporary sediment stilling basin in a gravel terrace along the north river bank, and placing beams on the new CIDH piers to connect them to the bridge.

After the construction phase, the culverts were to be removed and the gravel pad was to be notched and graded to allow the river to flow through. The gravel would be moved downstream during the higher flows associated with the fall and winter rainstorms in order to enhance fish habitat, pursuant to recommendations from state and federal wildlife agencies.

The Commission imposed special conditions including the following:

- the use of drilling muds required a permit amendment (**Special Condition 1**)
- water quality monitoring for pH (**Special Condition 2**)

- water quality best management practices on site (**Special Condition 3**)
- riparian vegetation survey, monitoring and restoration (**Special Condition 4**)
- minimize impacts to cliff swallows and bats that use the underside of the bridge for nesting and roosting through exclusion nets and monitoring (**Special Condition 5**)
- the submittal of a spill prevention, containment and cleanup plan (**Special Condition 6**)
- permittee must provide and maintain a portage around the construction area to allow ongoing use of the river by boaters (**Special Condition 7**)
- riprap was limited to 350 cubic yards along the shore surrounding Pier 9 (**Special Condition 8**)
- construction timing was limited to occur between May 15 and October 15, 2002 (**Special Condition 9**).

3.3 Description of Proposed Amendment

The project changes proposed in the amendment application include an extension of time allowed for the project, from May 15 to October 15, 2003, the use of drill muds, construction of an access road down the south bank of the river, and a reduction of fill in the river allowing an open channel to maintain river flow.

The proposed construction method would involve constructing a gravel work pad in the river channel to allow access under the bridge for the drilling equipment, bulldozers, trucks, and other equipment. The work pad would require approximately 830 cubic yards of clean, river-run gravel to be imported to the project site. The applicant would reduce the volume and length of the gravel fill from the originally permitted 360 feet and 2500 cubic yards to a length of 300 feet with a maximum width of approximately 25 feet on either side of the bridge's centerline and would be about two to four feet above water level. In order to reach the shoreline near Pier 9, the applicant proposes to construct a 13-foot wide, 148-foot long temporary access road with a volume cut of 654 cubic yards down the south shore of the river, primarily in an area vegetated with introduced grasses and both native and non-native herbs, adjacent to the riparian habitat illustrated in **Exhibit 4**. The applicant proposes to restore the south bank to its original contour and revegetate.

Associated work would include building a temporary earthern slurry containment berm surrounding drilling shafts at Pier 9, the deployment of silt fences on the downslope sides of the piers where the drilling will take place, and the placement of silt booms immediately downslope of the fences as an additional containment measure in the event of containment failure. When construction is complete, the applicant would notch and grade the gravel pad to allow the river to flow through. The gravel would be left in place in order to enhance fish habitat, pursuant to recommendations from state and federal wildlife agencies.

3.4 Other Permits and Approvals

The project is also subject to the following permits and approvals:

- Sonoma County Permit and Resource Management Department – General Plan Consistency Determination, September 8, 1999.
- Sonoma County CEQA exemption – December 18, 2001.
- Department of Fish and Game (DFG) – 1601 Lake and Streambed Alteration Agreement No. R3-2001-0220, issued November 13, 2001.
- Regional Water Quality Control Board (RWQCB), North Coast Region – Waiver of Waste Discharge Requirements and Issuance of Clean Water Act Section 401 Water Quality Certification, issued June 18, 2001.
- State Lands Commission – project considered maintenance under Lease #PRC 3349.9, per letter of June 1, 2001.
- Federal Highways Administration – Categorical Exemption, December 11, 2001.
- National Marine Fisheries Service (NMFS) – Biological Opinion, July 23, 2001.
- National Marine Fisheries Service – Revised Opinion, February 28, 2003.
- U.S. Army Corps of Engineers – provided coverage under Nationwide Permits #3 (Maintenance) and #33 (Temporary Access, Construction, and Dewatering), August 23, 2001.
- U.S. Fish & Wildlife Service (USFWS) – Endangered Species Act, Informal Consultation, November 30, 2001.
- Grant of Right to Use Property for Construction Purposes – granted by George P.B. Casini and Dina M. Casini Trust, January 23, 2003.

4.0 FINDINGS AND DECLARATIONS

Standard of Review

The standard of review is whether the project complies with the policies of Chapter 3 of the Coastal Act. The Commission may also refer to the provisions of the certified LCP for guidance.

4.1 Hazard Prevention

Coastal Act Section 30253 states:

> *New development shall:*
>
> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> (2) *Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding*

area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs...

In addition, the Sonoma County certified LCP (p. III-21) includes the following policy:

Geologic Hazards: Anticipate the effects of, and develop a plan in response to a major earthquake generated along the San Andreas fault zone.

The primary purpose of the proposed project is to reinforce an existing bridge to prevent damage during major seismic events. It is one of a series of projects to strengthen bridges throughout Sonoma County. Constructing the project as conditioned would maintain public access to the coastal zone, would provide additional assurance of emergency access following major earthquakes, and would reduce the risk of impacts to coastal resources due to damage that may be caused by bridge failure. The retrofit project has been designed and would be constructed in accordance with state and county engineering requirements. The project would not result in any measurable changes to stream capacity or flow velocities in the river channel. As such, the Commission finds that the project is consistent with and will carry out the requirements of Coastal Act Section 30253.

The project is also meant to reduce the effects of erosion on the existing bridge structure by placing approximately 350 cubic yards of additional riprap under the bridge on the river's relatively steep south bank and at the base of Pier 9 where river flows have caused slight erosion and undercuts. Placing riprap at these locations is meant to stabilize the structure and maintain the existing shoreline. The 1601 permit issued by the California Department of Fish and Game (DFG) requires that riprap be placed without removing existing trees from the river bank. As originally approved by the Commission, **Special Condition 8** prohibits placement of riprap beyond the base of Pier 9 as generally depicted on Figure 5 of the November 27, 2000 Natural Environment Study Report submitted with the CDP application **(Exhibit 3)**.

The construction of the access road down the south bank of the river has the potential to increase erosion and runoff into the waters of the Russian River. However, the existing bank is highly eroded and only partially vegetated with annual grasslands, separated by a ditch from the riparian habitat depicted in **Exhibit 4.** As conditioned, the project restoration would reduce the erosion of the bank at this site, and stabilize the shoreline with native plants. Because the originally approved project did not include construction of an access road, the Commission must impose additional conditions to ensure protection of coastal resources and in order to find the project amendment consistent with Coastal Act Section 30253(2). Therefore, the Commission imposes new **Special Conditions 10 and 11. Special Condition 10** requires the development to be undertaken pursuant to an erosion control plan to ensure that construction activities associated with the construction of the access road will not result in erosion or transport of sediments into the river or offsite. **Special Condition 11** requires the applicant to restore and revegetate the temporary access road upon completion of construction. The Commission finds that these measures are adequate to assure that the development as amended will neither create nor contribute significantly to erosion, geologic instability, or destruction of the site consistent with the requirements of Coastal Act Section 30253(2).

Conclusion:

For the reasons above, the Commission finds that the development as amended and conditioned is consistent with Section 30253 of the Coastal Act.

4.2 Biological Resources

Coastal Act Section 30231 states:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas, that protect riparian habitats, and minimizing alteration of natural streams.*

Coastal Act Section 30240 states:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

The Sonoma County certified LCP establishes that the riparian corridors on both sides of the Russian River are part of Sanctuary – Preservation Areas:

> *...the most environmentally sensitive areas along the coast. They correspond to "Environmentally Sensitive Habitat Areas" as defined in the 1976 coastal Act Sections 30107.5 and 30240. No development other than nature trails and resource dependent uses shall be allowed within such areas. There shall be no significant disruption of habitat values. Pesticide and herbicide applications would not be allowed within or affecting such areas unless it is necessary to maintain or enhance the functional capacity of the Sanctuary – Preservation area.*

The LCP (Chapter 3, pages 13, 16, & 17) also includes the following policies applicable to riparian areas, anadromous fish streams, and areas of open water:

> *Riparian –*
> *9. Prohibit construction of permanent structures within riparian areas as defined, or 100 feet from the lowest line of riparian vegetation, whichever is greater, except development dependent on the resources in the riparian habitat, including public recreation facilities related to the resource. Any development shall be allowed only if it can be sited and*

designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of the riparian habitat. The riparian area or 100 foot wide buffer zone should generally be maintained in a natural, undisturbed state...

10. Require erosion-control measures for projects affecting the riparian corridor.

11. Prohibit the removal of vegetation except commercial timber, subject to an approved timber harvest plan, from the riparian corridor unless it is shown to be essential to continued viability of the wetland.

12. Prohibit filling, grading, dredging, excavation or construction in the watercourse of a riparian corridor unless it is shown that such action will maintain the value of the area as a habitat for wildlife and aquatic organisms and is compatible with continued viability of the habitat.

13. Prohibit pesticide and herbicide application in a riparian protection zone of 100 feet above the lowest line of streamside vegetation, or within riparian areas as defined, whichever is greater.

Anadromous Fish Streams –
68. Maintain flows in streams identified as anadromous fish habitat at a minimum flow level as required to continue their use as a fish spawning area.

69. Stop all stream diversions when streamflow falls below minimum flow standards until stream flows return to levels above the minimum standards.

70. Prohibit dredging in all anadromous fish streams.

71. Prohibit dams or other structures which would prevent upstream migration of anadromous fish in streams designated as "anadromous fish habitat" unless other measures are used to allow fish to bypass these obstacles. Any bypass measures should be approved by the Department of Fish and Game.

Open Water –
76. Prohibit construction of new structures, and dredging, filling or diking in open water except in accordance with Section 30233 of the 1976 Coastal Act. Open water shall be defined in a manner consistent with the Commission's Wetlands Guidelines.

77. Prohibit dredging during periods of fish migration and spawning, and limit dredging to the smallest area feasible.

In addition, the Sonoma County General Plan includes the following provisions:

OS-3h: Design public works projects to minimize tree damage and removal along Scenic Corridors. Require revegetation following grading and road cuts.

OS-4c: Require a biotic resource assessment to develop mitigation measures if the Department determines that the project could adversely impact a designated Critical Habitat area.

OS-5h: Within a Riparian Corridor, roadway and utility construction should seek to minimize and mitigate, where feasible, damage to riparian areas. Minimize vegetation removal for necessary stream crossings. Grading, filling, or construction shall not substantially diminish or divert any stream flow or result in any substantial increase in bank instability or erosion.

The development as amended would take place in and immediately adjacent to the Russian River and its associated riparian habitat. Human activities have substantially altered the Russian River watershed, its riparian corridors, its flows, and its water quality. The Regional Water Quality Control Board (RWQCB) considers this reach of the river impaired due to excess sediments and siltation, and has included the river on the state's Clean Water Act Section 303(d) list of impaired waterbodies. Despite the alterations to the watershed, the project site continues to provide habitat for a number of species, including several considered endangered or threatened under federal or state law, and several listed as Species of Concern (see Table 1 below).

Biological Resources – Water Quality: The proposed project would include a risk of water quality degradation and spills of drilling muds; however, the applicant has incorporated into the project description a number of measures that are meant to avoid or minimize possible exceedances of water quality standards, including the following:

- Project Timing: The project is scheduled to occur between May 15 and October 15, with work in the active river channel itself limited to the period between June 15 and October 15 only. This construction work window is primarily meant to avoid or minimize possible impacts to the various anadromous fish species, but it would also result in the work occurring during the lower flow season in the river, which results in less risk of spills and injury or damage to construction personnel and equipment.

- Erosion Control: The applicant proposes to use erosion control measures on all erodable surfaces (i.e., not on areas of cobble or gravel). These include hydroseeding and installing a jute or equivalent biodegradable mesh, and grading post-project contours to match pre-project contours. The applicant also proposes to restore all disturbed areas of the south shore bank, and seed with suitable plants using wood mulch and a tackifier. Any slopes 2:1 or steeper would receive a wood fiber erosion control blanket. Riparian vegetation replacement would occur during the winter or spring after the construction had occurred.

- Drilling Muds Spill Prevention, Containment and Cleanup: The applicant proposes to minimize the potential for a spill through the use of a closed-loop system in which the slurry would be entirely contained within the baker tanks, the holes themselves, or within a pipe/hose system illustrated in **Exhibit 5**. The used slurry would be recirculated back into the tanks upon concrete placement into the shafts. To prevent adverse impacts from unexpected overflow, the applicant proposes to construct a temporary earthen berm around the temporary steel casing surrounding the drilling shafts at Pier 9. In addition, silt containment booms

would be deployed on the river immediately downslope of these locations in case the other containments are breached.

- Turbidity: Turbid water generated during the CIDH drilling process would be pumped to a settling basin to be constructed in the existing gravel bar on the north bank of the river. The applicant would excavate and remove sediment accumulated in the basin to an area outside the river channel where it cannot flow back into the river, and would regrade the settling basin to its pre-project configuration at the end of project construction.

  Debris, soil, silt, etc., would not be placed where it may be washed into waters of the State, and would not be deposited within 150 feet of any high water mark.

- Maintain Acceptable pH Levels: The applicant would pump water coming into contact with wet concrete and having a pH of greater than 9.0 to a transport truck for storage, treatment, or transport. This water would not be released where it can flow into surface waters until the pH is below 9.0.

- Fueling and Maintenance: The drill rig and crane would be stationary for several days at a time and would be refueled in place. All other equipment, however, would be fueled and maintained outside the river channel (top of bank to top of bank). The applicant would place spill absorbent materials under all stationary equipment to capture any leaks. At night, the applicant would move motorized equipment outside of the river channel (top of bank to top of bank). The applicant would not use vehicles or equipment that leak fuel or oil.

  All vehicle and equipment washing would take place outside of the river channel and outside of areas where washwater could drain to the river.

- Excavated Material: The applicant would remove the material excavated during the CIDH drilling operations to areas outside the river channel (top of bank to top of bank).

- Site Restoration: The applicant would excavate any accumulated sediment trapped in the project's temporary sediment basin and regrade the area to pre-project contours.

In addition to those measures listed above, the Commission imposes several other conditions to ensure conformity to the Coastal Act and to adequately protect coastal resources as follows.

The proposed amendment requests the use of drill muds during the CIDH drilling operations. Drill muds are a mix of clay and other chemical additives used to lubricate the drill bit and to keep the drill from seizing up during difficult operating conditions. The composition of the numerous types of drill muds varies widely, and discharges of drill muds to a waterbody can result in toxicity or exceedances of water quality criteria, depending on the type and concentration of drill mud used. The applicant proposes to use Super Mud™, a highly concentrated soil stabilizing polymer constructed by polyacrylamide molecules. The reasonable worst-case spill scenario would involve the breakage of the pipe transporting the slurry from the

holding tanks to the actual drilled shafts. The reasonable worst-case volume spilled would be 200 gallons.

Toxicity tests for the Super Mud™ slurry demonstrate that the lethal concentration where 50% of the test organisms perished during a 96-hour test period (LC50) is 3.2%. Additional tests conducted at lower concentrations of 1.8% and 1% confirmed that no mortality would result at these levels. Using a conservative average flow rate of 178 cubic feet per second for the river during summer, 200 gallons of drilling mud would be approximately 0.00017% by volume of the average daily flow of the river, far lower than the LC50 of 3.2%. Because the river flow is more dynamic than the toxicity tests allow for, sustained exposure to a significant pollutant concentration even over a short period of time would not happen as a result of a one-time spill of 200 gallons of the slurry because there would be no continuous source of the pollutant. Thus, a worst-case spill of 200 gallons would not result in a toxic concentration of drilling mud in the river.

The Super Mud™ slurry would be used away from the surface water of Russian River. The location nearest to the river surface is Pier 9, which would be separated by approximately 35 to 40 feet of imported clean river run gravel from the river. At this location, an earthern slurry containment berm would be built around the shafts. Due to existence of at least two layers of containment (three in the case of Pier 9), the likelihood of any spilled slurry reaching the waterway would be extremely low. However, due to the impaired status of the waterway and the presence of endangered and threatened species, any spill into the waterway must be avoided.

The Commission, in its original approval of this project, denied the use of drilling muds through **Special Condition 1**. The change in project description to allow for the use of drilling muds, therefore, requires additional conditions in order to protect coastal resources and to find consistency with Coastal Act Section 30231 and 30240. The Commission therefore replaces **Special Conditions 1** and **6** with a new **Special Condition 1** and a revised **Special Condition 6** and adds **Special Conditions 10 and 11**. New **Special Condition 1** requires the applicant to carry out the project in accordance to the Drilling Muds Spill Prevention, Containment and Cleanup Plan submitted with the permit amendment application and further requires the immediate containment of used slurry and offsite disposal following use. Furthermore, the applicant is prohibited from disposing of any slurry into the Russian River. As stated above, the spill prevention and containment measures include the closed-loop system of application, consisting of PVC piping and storage tanks and two (three in the case of Pier 9) layers of spill containment at the point of muds application. Any spill will be contained through the use of siltation fences and a containment boom and disposed of offsite. The cleanup plan is further elaborated in the applicant's Spill Prevention, Containment and Cleanup Plan submitted as part of the permit amendment application. This plan outlines the timing, procedure, equipment and requirement for notification of responsible agencies. The plan provides for an adequate amount of spill prevention and containment in order to minimize the risk of impacts from a spill. Revised **Special Condition 6** requires the permittee to undertake development in accordance with this plan. In addition, the low toxicity level of a worst-case spill scenario described above further ensures the reduction of adverse impact to coastal resources.

The CIDH technique also requires that wet concrete be poured directly into the holes drilled within the river channel. When wet concrete comes into contact with water, it can result in pH

levels above those protective of aquatic life. Water quality criteria established in federal and state regulations meant to protect aquatic life allow a pH range of 6.5 to 9.0 in freshwater. By using steel casings in the CIDH operations, the applicant would minimize the amount of high pH water that may be generated during the operation. To further minimize effects of high pH, the applicant would be required to pump water from the CIDH holes to a storage tank or settling basin where water would be tested for pH and turbidity before being released to flow into the river. Pumps would be of adequate capacity to ensure that water needing storage and/or treatment is removed to the storage area without affecting water quality outside the immediate vicinity of the concrete pour. To further ensure water quality is maintained, **Special Condition 2** of the original approval requires the permittee to monitor river water in the immediate area during times when wet concrete is being poured within the river channel to ensure pH levels remain below 9.0. If pH levels exceed 9.0, the permittee would be required to cease construction and recommence only after the permittee has proposed and received approval of a supplemental water quality plan. In addition, **Special Condition 3** of the original approval requires the applicant to remove all debris, trash, and other deleterious materials from the river and project site and would prohibit the use of machinery directly in the river (other than the drill rig).

Construction of the access road down the south bank towards Pier 9 and subsequent disturbance of soil and vegetation could temporarily increase sediment loads and associated turbidity in the lower Russian River. The magnitude of impacts on aquatic organisms downstream of the construction area depends on the timing and extent of the sediment loading and river flows during and immediately following construction. Extended periods of localized, high-suspended sediment concentrations and turbidity from channel disturbance generally result in reduced feeding opportunities for sight-feeding fish, sedimentation of spawning habitat and suffocation of eggs, and clogging and abrasion of gill filaments. As originally approved, **Special Condition 4** requires the applicant to provide a pre-project survey of vegetated areas at the project site, identify where vegetation is removed during project construction, monitor the natural rate of revegetation, and replant areas, if necessary. Following construction, the applicant must also reseed or replant areas where vegetation is disturbed or bare soil is left exposed.

To further ensure water quality is maintained, the Commission requires several additional conditions needed to protect coastal resources. The area of the southern river bank where the temporary access road is proposed to be located is presently oversteepened, eroded, and sparsely vegetated (**Exhibit 4, page 2**). **Special Condition 10** requires the applicant to carry out the development in accordance with an approved erosion control plan. **Special Condition 11** requires the applicant to recontour this area of the river bank following construction to match the natural contours of the adjacent bank and to plant the restored slope with native riparian plants. By establishing native riparian vegetation on this restored slope, the project would result in the creation of approximately 250 square feet of new riparian habitat on this currently sparsely vegetated and eroded slope. In addition to requiring the full restoration of the disturbed areas, establishment of this new riparian habitat would provide additional mitigation for the temporary disturbance of 1,500 square feet of riparian habitat during project construction.

Biological Resources – Endangered and Threatened Species, and Species of Concern: Several biological surveys have been done at or near the project site. The area provides known or probable habitat for several listed species, as shown in Table 1 below.

Table 1: Species of Special Concern at Moscow Road Bridge

Species Name:	**Type of Listing (Endangered, Threatened, Species of Concern, Other):**	**Known or Probable Habitat:**	**State or Federally-Listed:**
Coho salmon, Central California Coast (*Oncorhynchus kisutch*)	Threatened	Known	Federal
Chinook salmon, California Coastal (*Oncorhynchus tshawytscha*)	Threatened	Known	Federal
Steelhead, Central California Coast (*Oncorhynchus mykiss*)	Threatened	Known	Federal
Green sturgeon (*Acipenser medirostris*)	Species of Concern	Probable	State
Pacific lamprey (*Lampetra ayresi*)	Species of Concern	Probable	State
Russian River tule perch (*Hysterocarpus traskii pomo*)	Species of Concern	Probable	State
Western pond turtle (*Clemmys marmorata*)	Species of Concern	Probable	State
Mexican free-tailed bat (*Tadarida brasiliensis*)	Species of Concern	Probable	State and Federal
Pallid bat (*Antrozous pallidus*)	Species of Concern	Probable	State
Cliff swallow *(Petrochelidon pyrrhonota*)	Protected under Migratory Bird Treaty Act	Known	Federal

The salmonid species use the project area primarily as a migration route and for rearing habitat. The green sturgeon, tule perch, and lamprey may also use the project area at various stages of their life cycles. The Western pond turtle may use the river and gravel bars at the project site, but they are generally found in areas with denser riparian cover. The applicant also obtained an informal consultation from the USFWS stating that the project was not likely to adversely affect the California freshwater shrimp, which are generally found in smaller and higher gradient tributary streams rather than the mainstem of the Russian River.

The measures noted in the Biological Resources – Water Quality section above will not only serve to avoid or minimize adverse impacts to water quality, but will also help prevent adverse impacts to species and habitat in the project area. The applicant has incorporated a number of measures from the water quality certification and streambank alteration permit meant to avoid or minimize impacts to the species noted above.

For fish and aquatic species:

Project Timing: The project is scheduled to occur between May 15 and October 15, with work in the active river channel itself limited to the period between June 15 and October 15 only. This construction work window avoids all significant adverse impacts to the various anadromous fish species. It completely avoids spawning and downstream migration periods for coho, but partially coincides with both upstream and downstream migration of chinook, with downstream

migration of steelhead, and with the rearing period of all three species in the lower river. Although construction partially coincides with the chinook and steelhead migration and with rearing of all three species, the National Marine Fisheries Service, in its Biological Opinion on the proposed project, has determined the project will have a minimal adverse effect on the fish.

The three salmon species use the river during the following time periods:

- Coho salmon generally begin their migration from the ocean to their natal streams after the first heavy rains of late fall or early winter. This migration generally peaks in December and January, and may continue into March. Juvenile coho will initially seek out shallow water in these streams and then move into deeper pools, but will stay in freshwater during their first year. In the spring, yearling juveniles will move downstream and undergo smoltification, which prepares them for marine waters. They generally move into ocean waters between March and May each year.

- Chinook salmon have at two types of life history – ocean-type fish and river-type fish. The chinook in the Russian River are ocean-type fish. They generally migrate to freshwater from the ocean in fall or winter, and their offspring generally migrate out to the ocean during the following spring. Their inmigration may start as early as June, but it generally peaks in September and October, and ends in December. Juvenile chinook emerge between December and April, and outmigration to the ocean occurs between April and July. They use estuarine areas during the early summer while undergoing smoltification.

- Steelhead also have two types of life history – summer-run and winter-run. The steelhead in the Russian River are all winter-run. Winter-run steelhead generally migrate in from the ocean from December through April. Juvenile steelhead reside in freshwater at all times during the year, and generally spend two years in freshwater before moving into the ocean during spring and summer.

The salmon and the other fish species are in the river at all times during the year and therefore, the proposed development could not entirely avoid potential impacts. However, the revised project design will greatly reduce the potential adverse impacts to fish species from the originally permitted project gravel pad and associated culverts that would have restricted the passage of animals and sediments through the river channel. The applicant has included measures described below that would result in avoidance of any significant impacts to the fish, including using clean, river-run gravel that will create very low levels of turbidity, requiring gravel to be placed in the river in a manner that will not create backwaters or pools that may trap fish, and requiring a qualified biologist to be on site to direct gravel placement and to remove any fish that might inadvertently be trapped. Therefore, the development as amended will not result in significant adverse impacts to any of the listed fish species. As originally approved, **Special Condition 9** limited construction within the active river channel to a period from June 15 until October 15, 2002 in order to avoid adverse impacts to fish species. The County did not complete the development during this time. Therefore, a revised **Special Condition 9** limits construction within the active river channel to a period from June 15 until October 15, 2003.

Use of Clean, Imported Gravel: The DFG and NMFS identified this reach of the river as having less than optimum gravel supplies for fish use. Gravel mining in the Russian River over more than a century has taken millions of tons of gravel out of the river system, affecting the river hydraulics and channel dynamics, and changing the habitat characteristics of the lower river. Rather than use gravel from nearby gravel beds, the original permit required the applicant to import approximately 830 cubic yards of clean river-run gravel to construct the work pad. At the end of project construction, the applicant would remove the temporary culverts from beneath the gravel pad, notch and smooth out the gravel, and allow natural river flows to carry the gravel downstream and settle out in the lower reaches of the river. This would provide a slightly increased source of gravel in the lower river to make up for some of the extensive losses due to gravel mining further upstream.

Gravel Placement to Allow Fish Passage: Gravel imported for the work pad would be placed by pushing it out from the bank in a way that would not impound water or trap fish. The applicant would have a qualified biologist on site to direct work and move any stranded fish, if necessary.

Minimize Impacts to Riparian Vegetation: As stated above, the Sonoma County LCP establishes that the riparian corridors on both sides of the Russian River are part of Sanctuary Preserve Areas that are considered the most environmentally sensitive along the coast. Accordingly, the associated riparian corridors are considered ESHA.

The riparian vegetation in this reach of the river consists largely of brushy willow growth, which is highly adapted to an environment subject to regular disturbances such as flooding and gravel movement. The work associated with the proposed project would be less disruptive than natural disruption that occurs most winters when the willows are submerged during high flows on the river or when they are damaged by large woody debris moving down the stream channel. Accordingly, although the project is expected to result in some minor adverse effects due to temporary removal of riparian vegetation, as stated above, these effects are well within the natural disturbance regime in this area of the river. In addition, these effects are only temporary in that no new use will be established in the area covered by the vegetation.

The applicant has included several measures to avoid or minimize the effects of construction on the riparian vegetation, including siting most of the project work outside of vegetated areas, minimizing vegetation disturbance, restoring the contour and riparian habitat located in the vicinity of the south bank access road construction area, and requiring the use of environmentally sensitive area fencing to delineate the maximum extent of ground disturbance and protect existing vegetation. The total area of vegetation anticipated to be disturbed would be approximately 1500 square feet.

As originally approved, **Special Condition 4** requires habitat restoration of the disturbed areas. The area of the southern river bank where the temporary access road is proposed to be located is presently oversteepened, eroded, and sparsely vegetated (**Exhibit 4, page 2**). Project changes engender the need for a further condition in order to further protect coastal resources and to find consistency with Coastal Act Section 30240. Therefore, **Special Condition 11** requires the applicant to recontour this area of the river bank following construction to match the natural contours of the adjacent bank and to plant the restored slope with native riparian plants. By establishing native riparian vegetation on this restored slope, the project would result in the

creation of approximately 250 square feet of new riparian habitat on this currently sparsely vegetated and eroded slope. In addition to requiring the full restoration of the disturbed areas, establishment of this new riparian habitat would provide additional mitigation for the temporary disturbance of 1,500 square feet of riparian habitat during project construction.

With the mitigation measures that are proposed and required, the amended development would not result in a significant disruption of riparian habitat values or the establishment of a new use within the ESHA. Therefore, the Commission finds that the project, as conditioned, is consistent with Section 30240 of the Coastal Act.

Other Measures to Maintain or Enhance Habitat: Large woody debris in the project area would be moved away from the construction areas, but it would remain within the river channel where it could be washed into the river during winter high flows. Large woody debris, such as rootwads, tree boughs, and other similar material, provides several habitat benefits for fish – it increases channel diversity by creating areas of scour, backwater eddies, and pools that fish use for resting; it can provide additional hiding areas for small fish in among branches or roots; and the insects and other organisms that live on the debris serve as a source of food for fish.

For cliff swallows:

Cliff swallows (*Petrochelidon pyrrhonota*) use the underside of the bridge as a nesting site. They are locally and regionally abundant in California. As their name implies, they generally nest on cliffs and other natural vertical structures, but have benefited from the increase in nest sites provided by human-built structures, such as bridges and buildings. They are not considered endangered, threatened, or a species of concern, but they are protected under the Migratory Bird Treaty Act (MBTA), as implemented by the U.S. Fish and Wildlife Service (USFWS).

The project as proposed would clearly disturb swallows and their nests during nesting season, which generally runs from spring each year until the young have fledged in August or September. There are currently several dozen nests on the bridge from previous nesting seasons. The applicant evaluated several different options to avoid or minimize impacts to the swallows, including changing the construction schedule to avoid the nesting season, removing the nests before nesting season starts, and putting up nets or other materials to prevent the swallows from gaining access to the nests before and during the nesting season. Each of the options would require compliance with provisions of the MBTA.

Changing the construction schedule would have required work to occur in the fall and winter during periods of higher river flows. This would result in increased interference with anadromous fish migration and would expose construction personnel and equipment to more dangerous river conditions. Removing the nests or preventing access to the nests are both allowable under the MBTA, but only during times outside of nesting and fledging season when the nests are not active. The Department of Fish and Game requires in its streambank alteration permit that the nests be removed before construction starts, but prohibits removal of active nests. The USFWS also prohibits removal of active nests, but allows removal before nesting season starts, which is generally sometime in March each year.

Of the two methods that would prevent the birds from using the nests – removal or blocking access – blocking access might result in less overall impact to the birds, as it would disturb nesting for one season only, and would not require the swallows to rebuild the nests at this site in subsequent years. However, under natural conditions, swallows generally abandon nest areas after using them for several years because the nests become infested with parasitic insects. The swallows will then avoid the area for several years and will not return to use or rebuild the nests until after the insects die out. Therefore, removing the nests is not likely to result in a significantly differently impact to the swallows than would occur under natural conditions, and may actually improve site conditions in subsequent years by removing existing nests with their existing parasite population. Additionally, merely blocking access to the nests rather than removing them may increase the likelihood that swallows would attempt to gain access to existing nests rather than seek out other suitable nest sites nearby. Accordingly, the applicant's proposal to remove the nests prior to construction is consistent with the provisions of Section 30240 because the species is not endangered, threatened, or a species of concern, and the nests will be removed in compliance with the provisions of the MBTA.

Because the swallows may attempt to rebuild at these nest sites after nests are removed and during construction, **Special Condition 5** of the original approval requires the permittee to block access to the likely nest sites on the bridge to prevent new nests from being built during project construction. By preventing the swallows from occupying the bridge during construction, this condition will minimize impacts to the swallows by allowing the project to be completed during a single nesting season rather than have it delayed and stretch over two or more seasons. No project changes are proposed which affect this resource; therefore, **Special Condition 5**, as originally imposed by the Commission, is sufficient to protect swallows nests and the project as conditioned is consistent with the provisions of Section 30240.

For bats:

Along with cliff swallows, the underside of the bridge is used by bats for night roosting. A 1999 survey provided by the applicant showed that bats use the bridge at night, but found no evidence of a maternity colony or day roosting. The survey did not determine which species of bats used the bridge, but of the species present in Sonoma County, four are likely to use bridges as roost sites – the pallid bat (*Antrozous pallidus*), the big brown bat (*Eptesicus fuscus*), the Yuma myotis (*Myotis yumanensis*), and the Mexican free-tailed bat (*Tadarida brasiliensis*). Of the four, the pallid bat is listed as a state species of concern, and the Mexican free-tailed bat is listed as both a state and federal species of concern.

Because project work is scheduled to occur only during daylight hours, and because there is no evidence of a maternity colony or day use, the project is expected to result in minimal, if any, adverse effects on bats. Bats may be temporarily affected if the permittee places materials on the bridge to prevent swallows from nesting; however, because the bats generally use different areas of the bridge than do swallows, effects should be minimal if these materials are placed so they only prevent access to the inside corners of the bridge supports used as swallow nest sites. The swallow nest sites can be blocked using netting, wire mesh, wooden baffles, or other similar materials placed where nests are located. As originally approved, **Special Condition 5** restricts the size and location of these materials so that it both prevents the swallows from nesting and does not adversely affect bats. In addition, bats generally detect the location of new obstacles

very quickly and learn to avoid them. To ensure bats are minimally affected, **Special Condition 5** also requires the permittee to have a qualified biologist on site during the first two nights following placement of these materials and after any changes to their locations during the project to ensure any bats caught are removed and released. The condition also requires the materials to be completely removed as soon as practicable when construction is completed. No project changes are proposed which affect this resource; therefore, **Special Condition 5**, as originally imposed by the Commission, is sufficient to protect bats and the project as conditioned is consistent with the provisions of Section 30240.

Conclusion:

For the reasons above, the Commission finds that the development as amended and conditioned is consistent with Sections 30231 and 30240 of the Coastal Act.

4.3 Filling in Coastal Waters

Section 30233 of the Coastal Act states:

> *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:...*
>
> *...(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
>
> *(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.*
>
> *(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary...*
>
> *(d) Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.*

In addition, the Sonoma County General Plan includes the following policies applicable to the Moscow Road Scenic Corridor and Russian River designated Riparian Corridor in the Coastal Zone:

> *OS-5h: Within a Riparian Corridor, roadway and utility construction should seek to minimize and mitigate, where feasible, damage to riparian areas. Minimize vegetation removal for necessary stream crossings. Grading, filling, or construction shall not substantially diminish or divert any stream flow or result in any substantial increase in bank instability or erosion.*

The development as amended involves the placement of approximately 830 cubic yards of temporary fill in the Russian River to construct a gravel work pad. The purpose of this fill is to provide for the necessary seismic retrofit of an existing public roadway bridge by a public agency as required to meet state seismic safety standards. The proposed seismic retrofit is necessary to ensure structural and geologic stability on the site. The bridge will not be expanded to provide for additional traffic lanes or capacity. The revised project design requires less fill be placed in the river channel than the originally approved design and as such reduces the overall project impact upon essential fish habitat and ESHA of the Russian River. As such, the Commission finds that the proposed fill may be permitted as an incidental public service purpose in accordance with Coastal Act Section 30233(a)(5), if: (1) there is no feasible less environmentally damaging alternative, and (2) feasible mitigation measures have been provided to minimize adverse environmental effects.

Filling in Coastal Waters – Alternatives Evaluated: The originally approved and conditioned project alternative involved constructing a gravel work pad in the river channel to allow access under the bridge for the drilling equipment, bulldozers, trucks, and other equipment. The work pad would have required 2500 cubic yards of clean, river-run gravel to be imported to the project site. The applicant would have eventually extended the gravel pad out from the north bank of the river across the full width of the channel to allow drilling at Pier 9 and riprap placement along the river's south bank. As the applicant built the gravel pad, culverts would have been placed to allow the river to flow through the work area. The gravel pad would have had a maximum width of approximately 37.5 feet on either side of the bridge's centerline and would have been about two to four feet above water level. After the construction phase, the culverts were to have been removed and the gravel pad was to have been notched and graded to allow the river to flow through. The gravel would have moved downstream during the higher flows associated with the fall and winter rainstorms in order to enhance fish habitat, pursuant to recommendations from state and federal wildlife agencies. Although this alternative was originally selected, another less environmentally damaging alternative is now considered feasible.

The selected construction alternative, extending a partial gravel pad across the river channel and constructing an access road on the south bank, is now being chosen because it would result in less overall fill and direct impacts to salmonid habitat than the alternative chosen in the originally approved development from the channelization of the river, but would provide approximately 830 cubic yards of gravel to this lower stretch of the river for habitat improvement.

With regard to the riverine impacts associated with the chosen alternative, agencies evaluating river conditions and habitat characteristics for this project (including Sonoma County Permits and Resources Department, DFG, RWQCB, and NMFS) determined that adding gravel within the river channel at this project location would provide habitat benefits. The lower reach of the Russian River has very little gravel substrate, due in part to the low gradient of the channel for several miles upstream and also due to extensive gravel mining occurring further upstream. The other permits and approvals issued for this project, including the Department of Fish and Game 1601 permit and Regional Water Quality Control Board 401 certification, require the applicant to import clean, river-run gravel to the site and require that the gravel remain in the channel after project work is completed. At the end of construction, the applicant would notch the gravel work pad to allow the river to flow through it and move the gravel further downstream during fall and winter high flows.

Finally, the applicant evaluated another alternative construction method that would not require gravel placement in the river channel. This alternative involves constructing a temporary bridge just above water level to allow equipment access under the road bridge. The temporary bridge alternative would have a somewhat smaller footprint and would allow the river to flow more freely under the work area. However, the impacts to river conditions and public access would have been similar to the gravel work pad alternative and would not include the mitigating element provided by adding gravel to this stretch of the river.

Therefore, the Commission finds that there is no feasible less environmentally damaging alternative to the development as amended.

Mitigation Measures: Along with measures described above that avoid or minimize adverse impacts, the development as amended includes several additional mitigation measures. The use of clean, river-run gravel would result in low turbidity during gravel placement and would result in placement of gravel similar to that which would occur under natural river conditions. The gravel would be placed by pushing it out from the banks of the river in a manner that further avoids turbidity and avoids creating areas of backwater that might trap fish. The permittee would have a qualified biologist on site during gravel placement to ensure fish are not trapped and to move any fish that might inadvertently be trapped. Also, using steel casings around the piers would provide additional strength and protection for the development with minimal additional fill. Therefore, the Commission finds that feasible mitigation measures have been provided that minimize adverse environmental impacts caused by the proposed fill. Project changes will reduce the amount of fill into coastal waters and as such, reduce the potential adverse impact to coastal resources. As the conditions originally imposed by the Commission are sufficient to protect coastal resources and to support a finding of consistency with Section 30233, no new conditions regarding project fill are imposed.

Conclusion:

For the reasons above, the Commission finds that the development as amended and conditioned is consistent with Section 30233 of the Coastal Act.

4.4 Public Access and Recreation

Coastal Act Section 30210 states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Coastal Act Section 30211 states:

> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Coastal Act Section 30214 states:

> *(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*
>
> *(1) Topographic and geologic site characteristics.*
>
> *(2) The capacity of the site to sustain use and at what level of intensity.*
>
> *(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.*
>
> *(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.*
>
> *(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.*
>
> *(c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.*

Coastal Act Section 30220 states:

> *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

Coastal Act Section 30224 states:

> *Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.*

The Moscow Road Bridge provides access to the coastal zone, primarily for residents who live along the south shore of the Russian River between Monte Rio and the coast. The project would result in temporary bridge closures during the construction period and temporary encroachment of access to a portion of the river for recreational boating. There would also be minor impacts to traffic at and near the project site due to trucks hauling gravel for the work pad.

Public Access and Recreation – Bridge Closures: The applicant would occasionally close the bridge to vehicle and pedestrian traffic during the construction period to allow drilling or to move construction equipment. The applicant estimates the bridge would have to be fully or partially closed for up to several days at a time for a total of approximately four weeks during the anticipated four-month construction period. The full bridge closures would occur during daytime work hours; however, the applicant would allow at least one-way traffic during construction when feasible.

The bridge is used primarily to provide local access to a five-mile section of the south shore of the Russian River. State Highway 116, which extends along the north bank of the Russian River, provides the main regional access to the area. It connects with Highway 1 several miles west of the Moscow Road Bridge. There is another bridge about four miles upriver at Monte Rio that connects with Highway 116 and also provides access to the south bank of the river. The other roads leading off of Moscow Road on the south side of the river are dead-ends and do not connect to other areas.

People wishing to access the areas served by the Moscow Road Bridge can reach the same areas by using the other bridge at Monte Rio. There are no repairs scheduled for the Monte Rio Bridge during construction at the Moscow Road Bridge, and traffic flows at the Monte Rio Bridge are generally below capacity; therefore, the Commission finds that the project's effects on access would be minimal and temporary, and limited to slightly increased travel time to or from the Monte Rio Bridge for some area users.

Public Access and Recreation – Boating: The project is located on the Russian River at River Mile 5. Kayakers and canoeists use this reach of the river for recreation during the months proposed for the project work; however, the primary recreational use by boaters is upstream of

the project site. There are several boat launch and takeout points upriver that serve up to several dozen boaters per day during the summer and fall, but according to the applicant and the DFG biologist, most boaters do not venture downriver to the immediate project area.

Boats would be able to pass under the bridge during project construction through the 50 foot open channel that would be maintained between the north and south bank gravel work pads **(Exhibit 2)**. To minimize the amount of time the gravel pad encroaches into the river, the applicant has scheduled the project so that work on Pier 9 and the south bank will occur only for two to four weeks during the in-water construction phases of the project.

To mitigate for this temporary encroachment of access, the applicant will provide a portage through or around the project site. The portage location may shift as the project proceeds, but it will be available to boaters during all but a few days of the project when the applicant is constructing the gravel work pad. **Special Condition 7** would require the applicant to submit a plan for review and approval by the Executive Director that shows the portage location during various phases of the project, and that describes signs and buoys that will be placed above and below the project site to warn boaters. Boaters will therefore be able to use the river or the portage for all but a few days during the project's work window. Project changes reduce the potential adverse impact on boaters by allowing an open channel to remain in the river. Therefore, original conditions are sufficient to protect coastal access and staff recommends no new conditions. The Commission therefore finds that, as conditioned, the proposed development will not significantly affect public recreational boating.

Public Access and Recreation – Additional Truck Traffic: The applicant estimates that the work pad will require delivery of about 830 cubic yards of gravel. This would require about 83 trips by trucks holding 10 yards of gravel each. With trucks anticipated to arrive at 10-minute intervals, this would require about thirteen hours of delivery. To minimize impacts along the shoreline, the applicant would bring in gravel as it is used to construct the work pad rather than storing excess gravel on site. This would result in gravel being delivered in three different stages during the project.

The applicant would use Highway 116 as the delivery route. Current traffic patterns on this stretch of Highway 116 show a peak hourly volume of 700 to 800 vehicles and an average daily traffic volume of 6100 to 7900 vehicles; thus, the additional truck trips would add a very small percentage increase to existing volumes. Project changes reduce the volume of gravel used and subsequently, the number of supply trips and resulting impacts to public access. The project as conditioned is sufficient to protect coastal access and requires no new conditions. Therefore, the Commission finds that the traffic generated by the proposed development would not significantly interfere with public access to the coast.

Public Access and Recreation: The development as amended would result in temporary impacts to public access in the areas immediately adjacent to the bridge due to construction activities or heavy equipment operations, but would not result in any permanent or longer-term impacts to public access. In addition, there are several areas at or near the project site – the Duncans Mills Campground, just downstream from the project site, and Cassini's Campground, upstream from the project site – which allow river access for a day-use fee. There has also been some ongoing informal public access to the river through the County's right-of-way for the bridge and through

the adjacent Russian River Sportsmen's Club. Project changes will not result in additional impacts to public access in the adjacent areas. Therefore, the original conditions are sufficient to protect coastal access and no new conditions are required.

Conclusion:

For the reasons above, the Commission finds that the development as amended and conditioned is consistent with Sections 30210, 30211, 30214, 30220, and 30224 of the Coastal Act.

4.5 Hazardous Material Spills

Coastal Act Section 30232 states:

> *Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

The proposed project requires the use of machinery and equipment that will use and store up to several hundred gallons of diesel fuel, oil, and petroleum products in fuel tanks near or immediately adjacent to the Russian River. Equipment to be used at the project site includes a drill rig, backhoes, dozers, excavators, concrete trucks, and various support trucks. There is also a potential of spills from trucks being used to bring gravel to the project site. The proposed project amendment allows for the use of drilling muds during construction. Equipment to be used at the project site includes a baker tank to contain the slurry mixture, two PVC pipes to transport the slurry to the CIDH pile location and back after use for recycling, and a hose for applying the muds.

Consistency with Section 30232 of the Coastal Act requires meeting a two-part test – first, does the development provide protection against project-related spills, and second, does it provide effective containment and cleanup should a spill occur?

Protection Against Spills:

The project would require use and storage of up to several hundred gallons of fuel and oil at and near the project site, close to or within the channel of the Russian River. The applicant would take the following measures to protect against spills:

- The applicant would be required to produce a spill prevention and cleanup plan as part of project startup.

- Equipment would be fueled using a service vehicle that would be kept outside the river channel.

- No hazardous materials, including fuel, would be stored within 75 feet of the water, except within fuel tanks of machinery needing to operate in that area.

- The applicant would be required to have enough absorbent material at the job site to fully contain any spilled or leaked fuel.

- The applicant would be required to immediately respond to any spill by contacting the local spill response authorities.

In addition, other permits issued for the project and incorporated into the project description would prohibit the applicant from using vehicles or equipment with leaks, require that vehicles and equipment be stored outside of the river channel unless a drip pan is secured to them, and require equipment to be washed only outside of the river channel in areas where runoff will not drain to the river.

Protection Against Drilling Mud Spills:

The project would require use and storage of up to 200 gallons drilling muds per foot of depth installed into the holes during drilling at and near the project site, close to or within the channel of the Russian River. The applicant would take the following measures to protect against spills:

- The construction of an earthen berm around the temporary casing to capture any slurry that may spill.

- Silt fences would be deployed on the downslope sides of the piers where the drilling would take place. In addition, silt containment booms would be deployed on the river immediately downslope of these locations in case the other containments are breached **(Exhibit 2)**.

The use of drilling muds is a significant change to the originally approved project. Therefore, the Commission requires a new special condition 1 and the revision of **Special Condition 6** as originally approved to ensure protection of coastal resources and consistency with Coastal Act Section 30232. New **Special Condition 1** would require the use of drill muds in strict accordance with the approved Drilling Muds Spill Prevention, Containment and Cleanup plan submitted as part of the permit amendment application. This plan includes a detailed description of spill prevention, containment, and cleanup equipment to be maintained on site, the measures that will be implemented to prevent, contain, and clean up any spills, and contact information for responding to spills. As stated above, the spill prevention and containment measures include the closed-loop system of application, consisting of PVC piping and storage tanks and two (three in the case of Pier 9) layers of spill containment at the point of muds application. Any spill will be contained through the use of siltation fences and a containment boom and disposed of offsite. The cleanup plan is further elaborated in the applicant's Spill Prevention, Containment and Cleanup Plan (**Special Condition 6**) submitted as part of their permit amendment application. This plan outlines the timing, procedure, equipment and requirement for notification of responsible agencies. The plan provides for an adequate amount of spill prevention and containment in order to mimimize the risk of impacts from a spill. In addition, the low toxicity level of a worst-case spill scenario described above further ensures the reduction of adverse

impact to coastal resources. The Commission finds that with these measures in place, the development as amended meets the first test of Coastal Act Section 30232.

Hazardous Materials Spill Containment and Cleanup: If a hazardous material spill were to occur during project construction, it could have an immediate impact on water quality and habitat in the Russian River. The project's work window within the river channel of June 15 to October 15 is generally the lowest flow period in the river, and the project location is in an area where flow velocities are relatively low; however, a spill could affect water quality and habitat if adequate containment and cleanup measures are not properly implemented.

As stated above, new **Special Condition 1** would conscribe the use of drill muds to the approved Drilling Muds Spill Prevention, Containment and Cleanup Plan and revised **Special Condition 6** requires that the applicant undertake development in accordance with the approved Spill Prevention, Containment and Cleanup Plan submitted as part of the permit amendment application.

The Commission has determined in past decisions that spills cannot be effectively contained or cleaned up when they occur in open waters. However, because accidental spills from this facility would be subject to the measures cited above, and because they would occur in a relatively low flow, quiescent riverine environment well away from open ocean waters, they may be effectively contained and cleaned up within this area. The Commission therefore finds that with these measures in place, the development as amended meets the second test of Coastal Act Section 30232.

Conclusion:

The two tests of Section 30232 are first, to ensure protection against spills, and second, to ensure that effective containment and cleanup is provided if spills occur. The Commission finds that the project meets the first test because the BMPs described in the above documents and as required by new **Special Condition 1** and revised **Special Condition 6** provide significant protection against spills. The Commission finds that the project meets the second test because these BMPs include measures to effectively contain anticipated spills within relatively confined areas of the river channel, and to clean up spills using spill cleanup equipment and personnel available at the project site.

For the reasons described above, the Commission finds that the development as amended and conditioned, is consistent with Section 30232 of the Coastal Act.

4.6 Scenic and Visual Qualities

Coastal Act Section 30251 states:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded area.*

The project area is also partially visible from the Highway 116 Scenic Corridor established in the certified LCP (Chapter 7, page 39). Visual resource provisions of the LCP applicable to the proposed project include the following:

> *View Protections*
> *1. Prevent development (including buildings, structures, fences, paved areas, signs, and landscaping) from obstructing views of the shoreline from coastal roads, vista points, recreation areas, and beaches.*
>
> *2. Prohibit development which will significantly degrade the scenic qualities of major views and vista points.*
>
> *Alterations of Landforms*
> *4. Minimize visual destruction of natural landforms caused by the cutting, filling, and grading for building sites, access roads and public utilities by:*
>
> > *Concentrating development on level areas so that steeper hillsides are left undisturbed*
> >
> > *Prohibiting new development which requires grading, cutting, or filling that would significantly and permanently alter or destroy the appearance of natural landforms*
> >
> > *Restoring landforms as completely as possible after any permitted temporary alteration during construction, timber harvesting, or mineral extraction*
> >
> > *Constructing roads, buildings, and other structural improvements to fit the natural topography...*

In addition, the Sonoma County General Plan includes policies applicable to the Moscow Road Scenic Corridor and Russian River designated Riparian Corridor in the Coastal Zone:

> *OS-2e: Requires that new structures and cuts and fills in a Scenic Landscape Unit minimize visual impacts.*
>
> *OS-3c & 3.2: Maintenance or minor expansion of existing structures are permitted within a Scenic Corridor if compatible with the preservation of scenic values along designated scenic highway corridors.*

The proposed project amendment will result in visual changes to bank of the Russian River and the bridge and will affect views in and near the river corridor. These visual changes include the construction of a temporary 148 foot long access road and the temporary disturbance of approximately 4000 square feet of existing vegetation, approximately 3500 square feet of it annual grasslands as depicted on **Exhibit 4** and approximately 1,500 square feet of adjacent riparian habitat, predominantly willows.

These changes would be most visible to people under the bridge or in the river channel area using the river for boating or fishing. Motorists and pedestrians on the bridge would see very little of the changes since they would be constructed primarily under or beside the existing bridge. The project would not include any permanent structural elements above the existing grade of the bridge. All viewers in the area may notice short-term visual impacts due to activity and equipment use during project construction.

As originally approved, **Special Condition 4** requires the applicant to restore areas disturbed by project activities. Because the new structures would not add appreciably to the visual appearance of the bridge and because most of them are located in areas where riparian vegetation will grow to cover them, the proposed project would not result in significant adverse impacts to coastal views. The short-term visual impacts would be somewhat greater than long-term, due to activity from construction equipment and due to the time lag for riparian vegetation to grow back. However, project changes engender the need for additional conditions in order to protect coastal viewsheds and ensure consistency with Coastal Act Section 30251. Therefore, **Special Condition 11** requires the applicant to recontour this area of the river bank following construction to match the natural contours of the adjacent bank and to plant the restored slope with native riparian plants. By establishing native riparian vegetation on this restored slope, the project would result in the creation of approximately 250 square feet of new riparian habitat on this currently sparsely vegetated and eroded slope. The Commission finds that, as conditioned, the development as amended would not significantly alter the appearance of the existing bridge and will not adversely affect views to and along the scenic coastal area where it is located.

Conclusion:

For the reasons above, the Commission finds that the development as amended and conditioned is consistent with Section 30251 of the Coastal Act.

5.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the Commission's administrative regulations requires Commission approval of CDP applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of the CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. As discussed above, the development as amended has been conditioned to be found consistent with the policies of the Coastal Act. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. Mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity would have on the

environment. Therefore, the Commission finds that the amended development, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act and to conform to CEQA.

APPENDIX A: Substantive File Documents

Baseline Vegetation Survey for the Moscow Road Bridge Seismic Retrofit, Sonoma County, California, Moore Biological Consultants, August 29, 2002.
Bioassay Report [on the Toxicity of Super Mud™ to Fathead Minnows], Aquatic Bioassay & Consulting Laboratories, Inc., April 29, 1991.

Biological and Water Quality Monitoring in the Russian River Estuary, Annual Reports 1996, 1997, 1998, 1999, 2000, Sonoma County Water Agency, June 12, 2001

Biological Opinion: Seismic Retrofit of Moscow Road Bridge over the Russian River in Sonoma County, California, National Marine Fisheries Service, July 23, 2001.

Fact Sheet – Green Sturgeon, California Department of Fish and Game, Habitat Conservation Planning Branch, Sacramento, CA.

Fact Sheet – River Lamprey, California Department of Fish and Game, Habitat Conservation Planning Branch, Sacramento, CA.

Fact Sheet – Russian River Tule Perch, California Department of Fish and Game, Habitat Conservation Planning Branch, Sacramento, CA.

Fact Sheet – Western Pond Turtle, California Department of Fish and Game, Habitat Conservation Planning Branch, Sacramento, CA.

Guidelines for Salmonid Passage at Stream Crossings, National Marine Fisheries Service, Southwest Region, September 2001.

Natural Environment Study Report, Moscow Road Bridge over the Russian River at Duncans Mills, Jones and Stokes, November 27, 2000.

Personal communications, DFG Biologist Bill Cox, November 2000.

Review of Potential Impacts to Fisheries Resources From Gravel Extraction in Humboldt County, California, Halligan, Dennis, Natural Resources Management Corporation, Eureka, CA., Jay 21, 1997.

Russian River Estuary Study 1992- 1993, prepared for the Sonoma County Department of Planning, and the Coastal Conservancy, by Peter Goodwin, Ph.D, P.E., and C. Kelly Cuffe (Phillip Williams and Associates, Ltd.), and Jennifer L Nielsen (USFS) and Theo Light.

Sonoma County Coastal Administrative Manual, June 1982

Sonoma County Coastal Plan, January 1981

Sonoma County Coastal Zoning Ordinance, March 1982

Super Mud™ Informational Materials, submitted from Sinclair Well Products, August 22, 2002.

Swallows, from "Prevention and Control of Wildlife Damage Fact Sheet", by W. Paul Gorenzel, (U.C. Davis) and Terrell P. Salmon (U.C. Davis), for United States Department of Agriculture Cooperative Extension Division, Lincoln, Nebraska, 1994.

List of Exhibits:

1. Location Maps
2. Revised Site Plan
3. Originally Approved Site Plan
4. Site of Proposed Access Road Construction
5. Super Mud Containment System
6. Staff Report 2-01-14

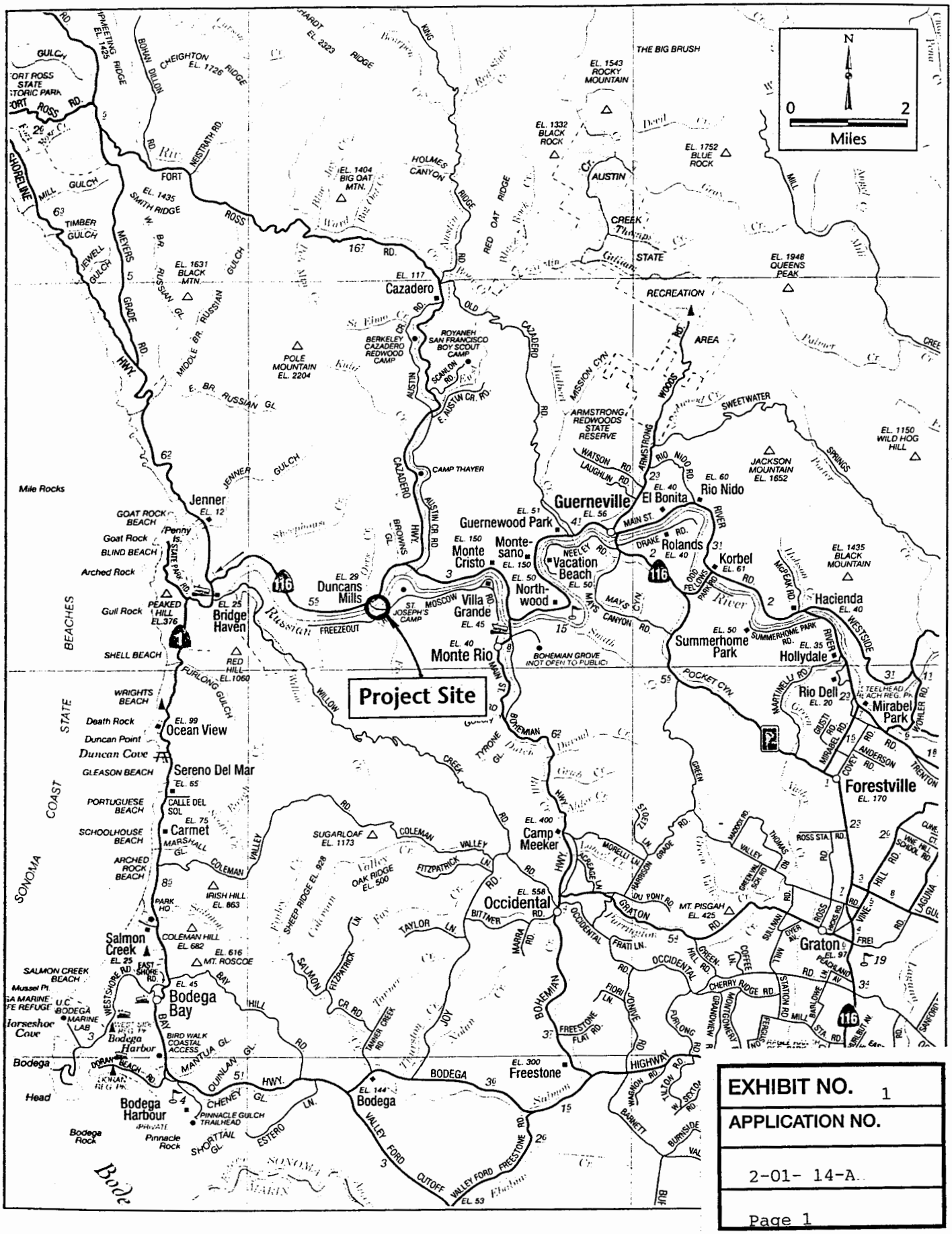


EXHIBIT NO. 1
APPLICATION NO.
2-01- 14-A
Page 1

Regional Location Map

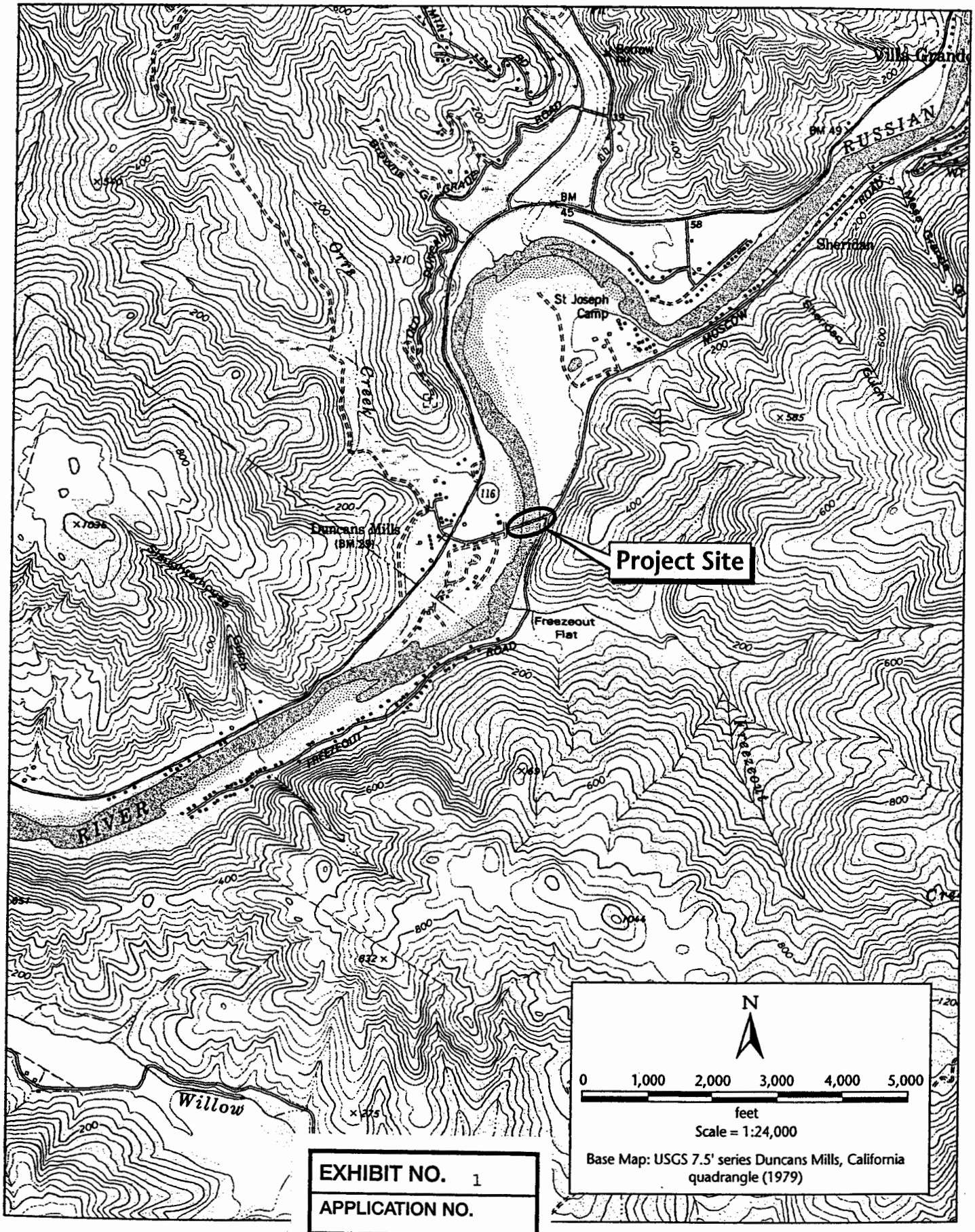
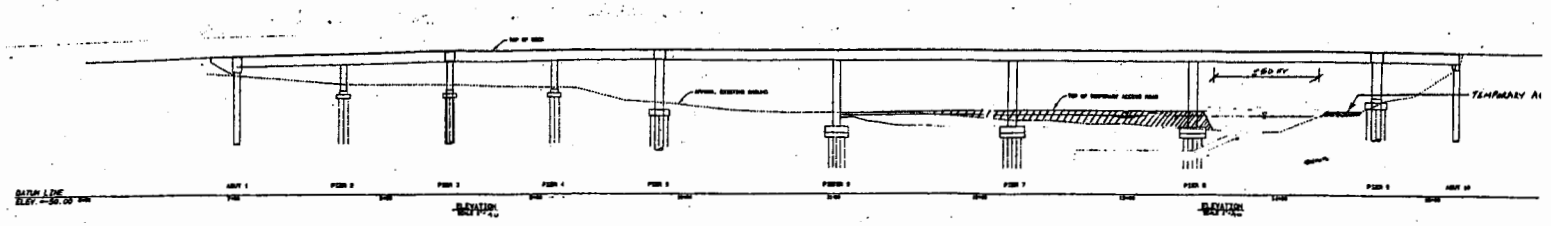


EXHIBIT NO. 1
APPLICATION NO.
2-01- 14-A
Page 2

Figure 2
Project Site Map

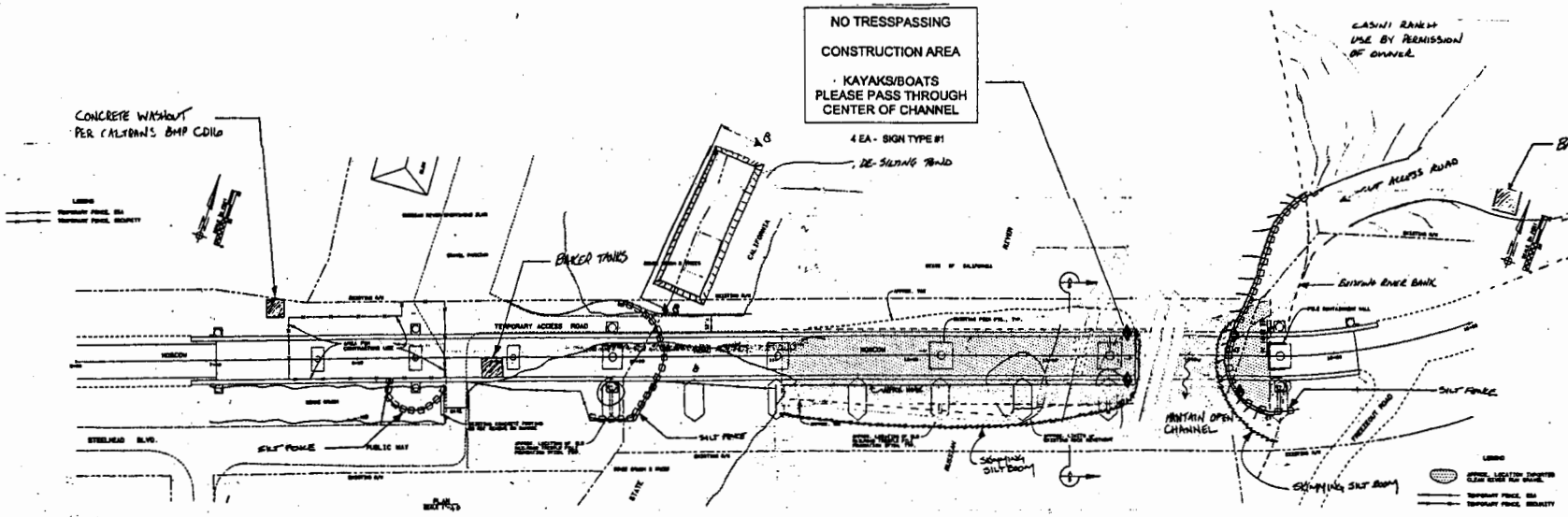


WILL BE SUPPLIED BY:

BOHAN & CANELIS
600 AUSTIN CREEK ROAD
CAZADERO, CA 95421
(707) 632-5296

WATER WILL BE TESTED FOR pH UPSTREAM AND DOWNSTREAM BEF DURING, AND AFTER CONCRETE PLACEMENT OPERATIONS ADJACEN THE RIVER THIS WILL BE REQUIRE CONCRETE PLACEMENT AT PIER 9. DURING DRILLING OPERATIONS, THE DRILL RIG WILL REMAIN WITHIN THE RIVER BANK AT OFF-WORK HOURS. PROTECTIVE MEASURES TO BE TAK ARE:

a. TEMPORARY SECURITY FENCE AROUND THE EQUIPMENT
b. THE EQUIPMENT WILL SIT ON A P/ ABSORBENT MATERIAL
c. THE CONTROLS WILL BE TEMPORARILY DISABLED SO THAT VANDALS CANNOT START/MOVE T EQUIPMENT.

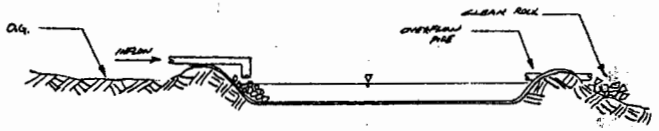


SPILL PREVENTION AND CONTROL
ACCORDANCE WITH CALTRANS BMP CD12

A MAT OF ABSORBENT MELTBLOWN PLYPROPYLENE MATERIAL SHALL BE PLACED UNDER EACH PIECE OF STATIONARY EQUIPMENT CONTRACTOR SHALL MAINTAIN ADDITIONAL ABSORBENT MELTBLOWN POLYPROPYLENE PADS/SOCKS FOR CONTAINMENT AND CLEANUP OF ANY UNEXPECTED FUEL/FLUID SPILLS. IN THE CASE OF UNEXPECTED SPILL THE PRACTICE TO BE FOLLOW IS:

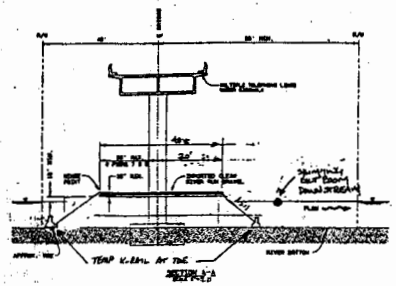
a. CONTAIN THE SPREAD OF THE SPILL
b. RECOVER THE SPILLED MATERIALS USING THE ABSROBENT MELTBLOWN POLYPROPYLENE. IF IN DIRT, CONTAIN THE SPILL BE CONSTRUCTING A BERM AROUND THE SPILL.
c. CLEAN THE CONTAMINATED AREA (IF IN SOIL, DIG THE AREA OUT) AND PROPERLY DISPOSE OF CONTAMINATED MATERIALS.

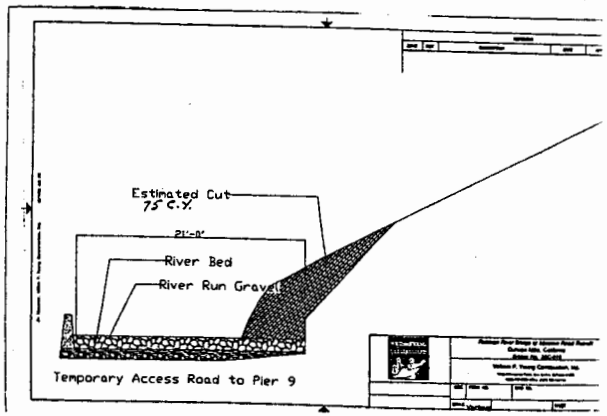
EQUIPMENT SHALL BE MAINTAINED IN A LEAK FREE AND GOOD OPERATING CONDITION.
STORAGE OF SOLVENTS, COATINGS, FUELS, AND POTENTIAL HAZARDOUS MATERIALS SHALL BE IN THE DESIGNATED LAY DOWN AREA AS INDICATED ON THE CONTRACT PLANS.
IN THE EVENT OF A SIGNIFICANT/HAZARDOUS SPILL, THE ENGINEER AND LOCAL EMERGENCY RESPONSE WILL BE IMMEDIATELY NOTIFIED.



SECTION B-B : STILLING BASIN PER CALTRANS BMP CD41

1. SIZE IS 90' X 30' (3:1 RATIO) AS NEEDED
2. 3 FT DEPTH (600mm SETTLING, 300mm SEDIMENT)
3. FOR USE OF DE-WATERING ONLY. NOT TO BE USED FOR DRILLING OPERATIONS.





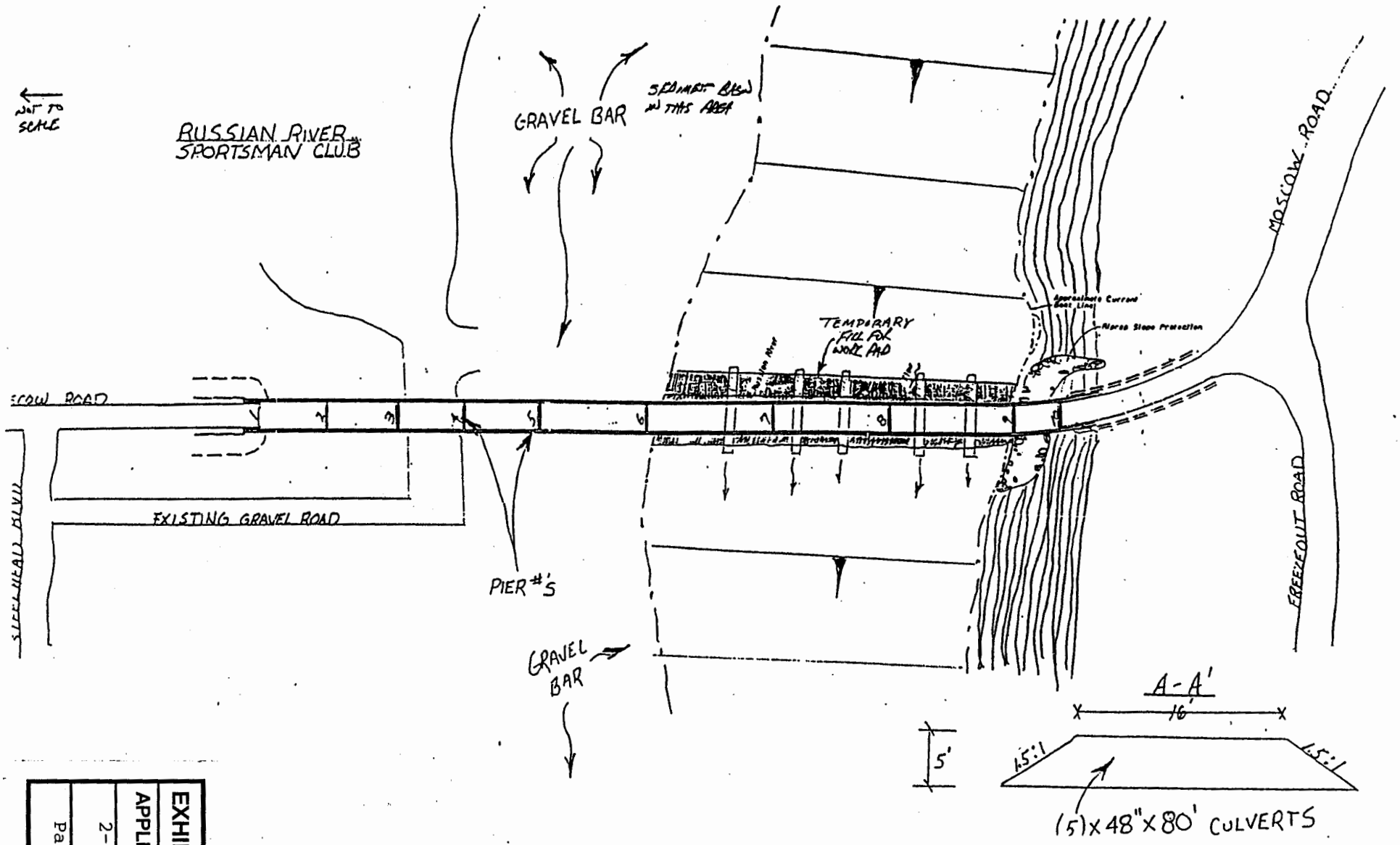
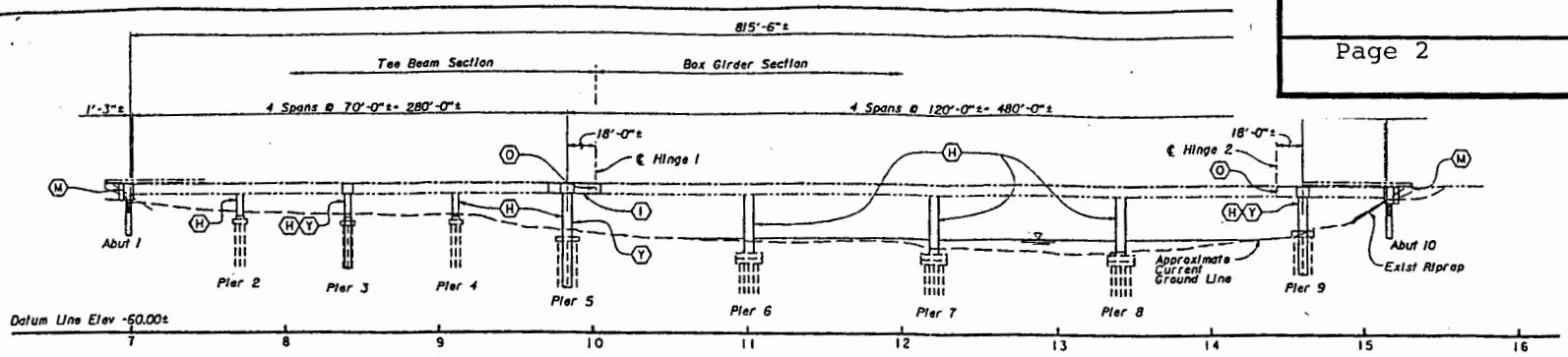
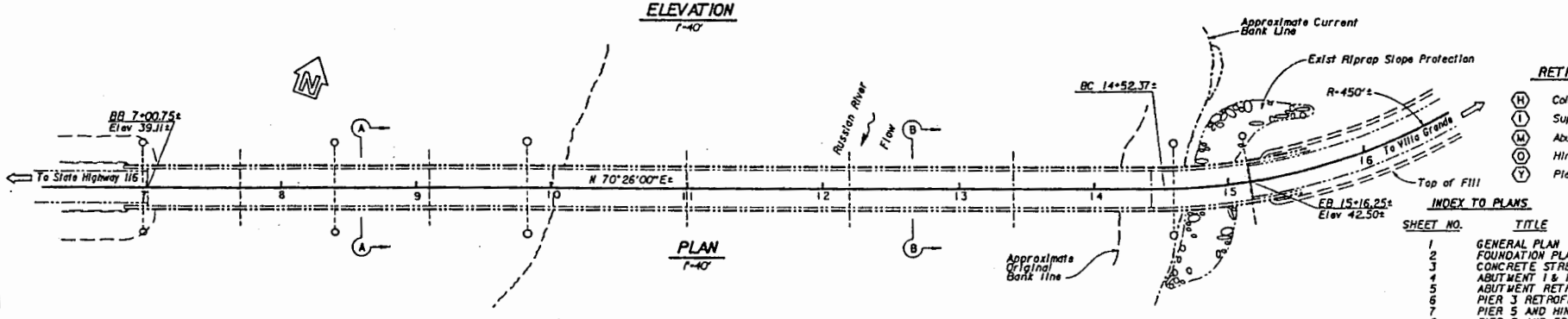


EXHIBIT NO. 3
APPLICATION NO. 2-01-14-A
Page 1

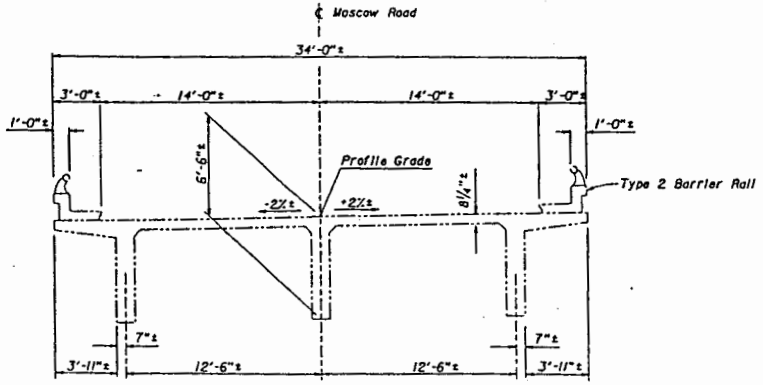
Figure 4
Moscow Road Bridge — Proposed Construction Details



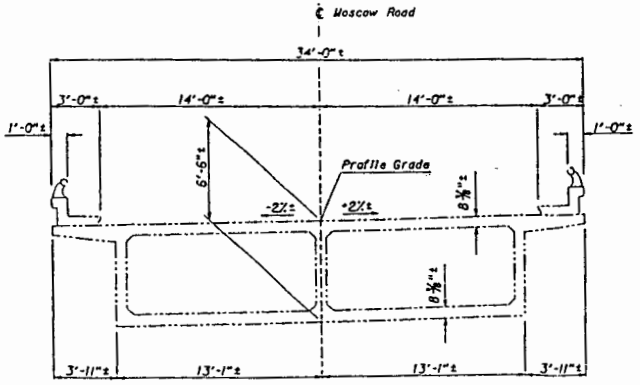
ELEVATION
1"=40'



PLAN
1"=40'



SECTION A-A
1/4"=1'-0"



SECTION B-B
1/4"=1'-0"

RETROFIT LEGEND

H	Column Casing
I	Superstructure Retrofit
M	Abutment Retrofit
O	Hinge Retrofit
Y	Pier Retrofit

INDEX TO PLANS

NOTES:

1. The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
2. For General Notes and Legend, see "Foundation Plan" sheet.

---------- Indicates Existing Structure

———— Indicates New Structure

COUNTY: SON | ROUTE: | POST MILES TOTAL PROJECT: | SHEET NO: | TOTAL SHEETS:

STEREDGING ENGINEER

PLANS APPROVAL DATE

IMBSEN & ASSOCIATES, INC.
9912 Business Park Dr., Suite 130
Sacramento, California 95827

REGISTERED PROFESSIONAL ENGINEER — JIM MI — No. 49369 — Exp. 9/30/00 — CIVIL — STATE OF CALIFORNIA

Figure 5
General Plan

MOE AMINI, DESIGN OVERSIGHT	DESIGN	BY Y. J. LIU	CHECKED J. MA	LOAD FACTOR DESIGN			
	DETAILS	BY J. LIVINGSTON	CHECKED Y. J. LIU	LAYOUT	BY Y. J. LIU	CHECKED J. MA	
	QUANTITIES	BY Y. J. LIU	CHECKED J. MA	SPECIFICATIONS	BY F. STEPHENSON	PLANS AND SPECS COMPARED J. MA	

PREPARED FOR SONOMA COUNTY

J. MA, PROJECT ENGINEER

CU 04
EA L02209

BRIDGE NO. 20C-016
POST MILE

EARTHQUAKE RETROFIT PROJECT
RUSSIAN RIVER BRIDGE (ON MOSCOW ROAD)
GENERAL PLAN

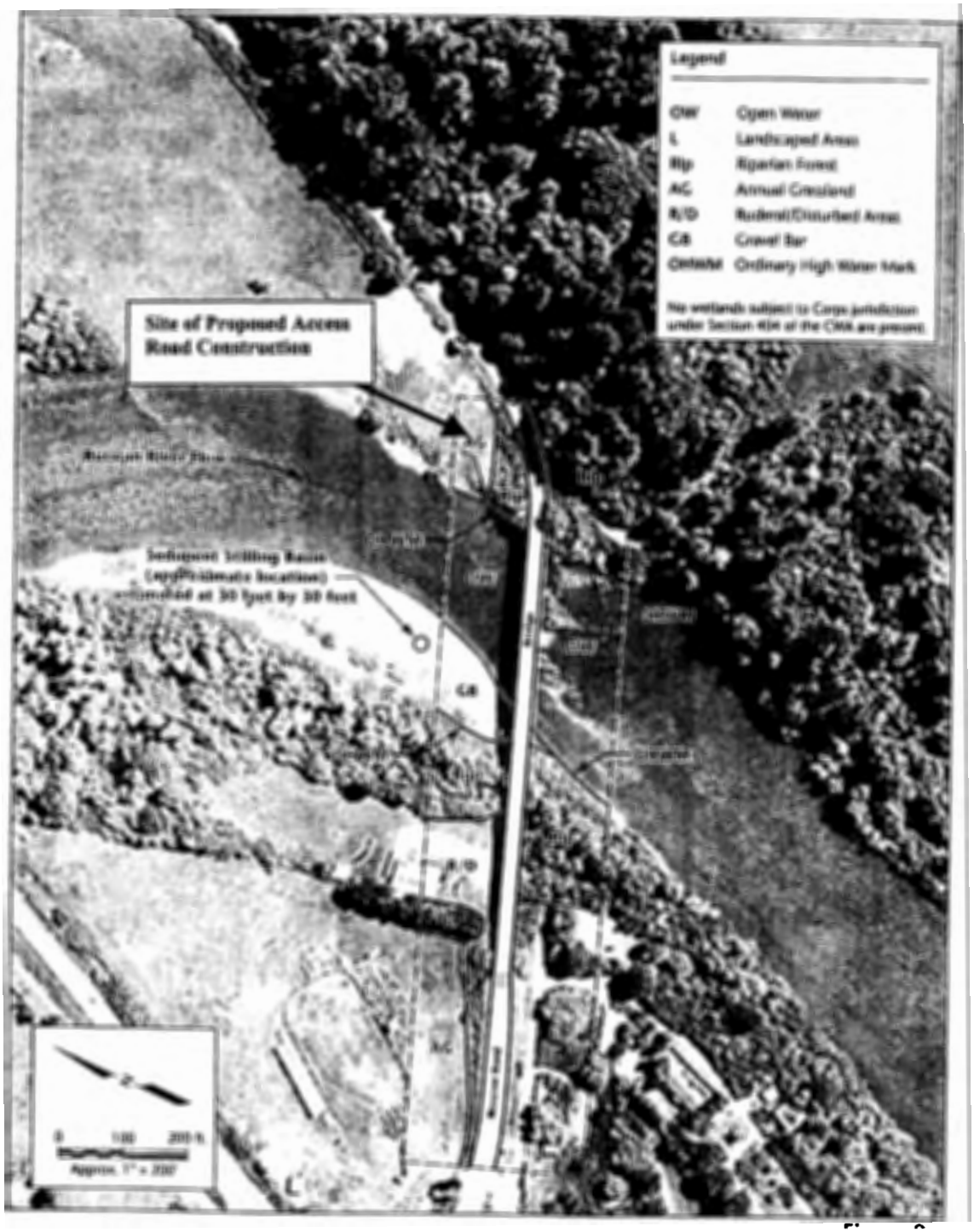
DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET 1 OF 21

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

FORM DC-OE-92-PF (REV. 3/88)



Site of Proposed Access Road Construction and Biological Communities at the Moscow Road Bridge Project Site

EXHIBIT NO. 4
APPLICATION NO.
2-01- 14-A
Page 1

Site and Area of Temporary Disturbance of the Proposed Access Road Construction, Moscow Road Bridge, Sonoma County.

THE SUPER MUD SYSTEM

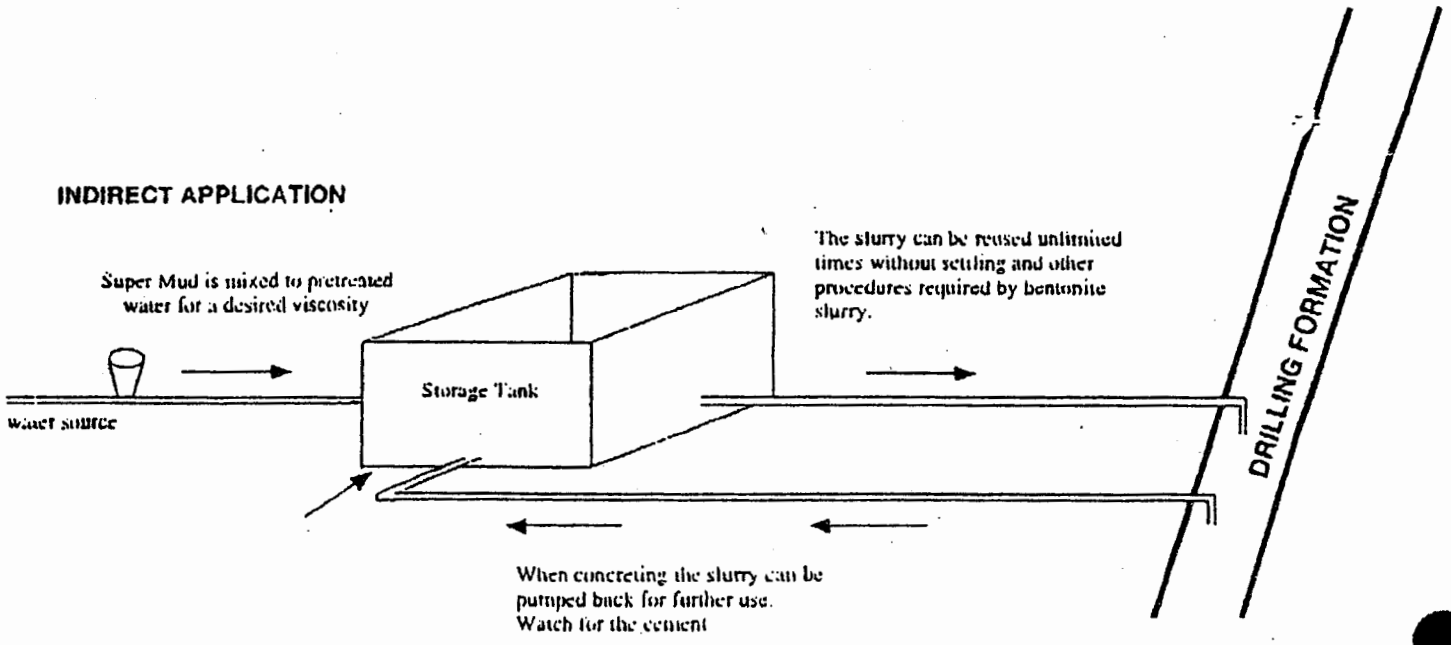


EXHIBIT NO. 5
APPLICATION NO.
2-01- 14-A

TE OF CALIFORNIA—THE RESOURCES AGENCY GRAY DAVIS, *GOVERNOR*

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE AND TDD (415) 904- 5200
FAX (415) 904- 5400

W29a

Date CDP Filed:	January 24, 2002
49th Day:	March 14, 2002
180th Day:	July 24, 2002
Staff:	TRL-SF
Staff Report:	February 14, 2002
Hearing Date:	March 6, 2002

STAFF REPORT: REGULAR CALENDAR

APPLICATION FILE NO.:	**2-01-14**
APPLICANT:	**Sonoma County Department of Transportation and Public Works**
PROJECT LOCATION:	Moscow Road Bridge, at River Mile 5 on the Russian River, near the town of Duncans Mills, Sonoma County.
PROJECT DESCRIPTION:	Seismic retrofit of an existing two-lane highway bridge.
LOCAL APPROVALS:	Sonoma County Permit and Resource Management Department – General Plan Consistency Determination, September 8, 1999. Sonoma County CEQA exemption – December 18, 2001.
SUBSTANTIVE FILE DOCUMENTS:	See Appendix A

EXHIBIT NO. 6
APPLICATION NO.
2-01-14-A

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

This staff report evaluates a proposed seismic retrofit of the Moscow Road Bridge, which crosses the Russian River approximately five river miles inland from the mouth at the town of Duncans Mills, in Sonoma County. The proposed project is located within the tidally-influence reach of the Russian River and is within the retained jurisdiction of the Coastal Commission.

The project involves constructing a gravel work pad within the river channel, drilling holes in the channel and placing ten new concrete piers, and placing steel armoring around five existing piers. Gravel placed in the river for the work pad will be imported to the site and will be left in the river to enhance fish habitat, pursuant to recommendations from state and federal wildlife agencies. The project is also subject to conditions of a water quality certification issued by the Regional Water Quality Control Board and a Streambed Alteration permit issued by the Department of Fish and Game. The applicant has incorporated those conditions into the project description.

Staff recommends that the Commission approve the proposed project, as conditioned. **Special Condition 1** would prohibit the use of drill muds, unless the permittee applies for a permit amendment. **Special Condition 2** would require water quality monitoring to ensure construction is not resulting in high pH levels in the river. **Special Condition 3** would require the permittee

to use additional water quality Best Management Practices (BMPs) to minimize project impacts. **Special Condition 4** would require impacts to riparian vegetation be minimized and that areas where vegetation is removed be monitored and replanted as necessary. **Special Condition 5** would minimize impacts to cliff swallows and bats that use the underside of the bridge for nesting and roosting. **Special Condition 6** would require the permittee to provide a spill prevention plan for Executive Director approval before starting construction. **Special Condition 7** would require the permittee to provide and maintain a portage around the construction area to allow ongoing use of the river by boaters. **Special Condition 8** would limit the amount of riprap placed in the river channel to the minimum needed for the project. **Special Condition 9** ensures limits on the timing of construction.

Staff have determined that the proposal, as conditioned, will comply with Coastal Act Sections 30231 and 30240 (biological resources), 30232 (oil spill prevention, containment, and cleanup), 30233 (filling in coastal waters), 30210, 30211, 30214, 30220, and 30224 (public access and recreation), 30253 (Hazard Prevention), and 30251 (scenic and visual qualities).

2.0 STAFF RECOMMENDATIONS

Coastal Development Permit Application 2-01-14

The staff recommends conditional approval of the permit application.

Motion:

> *I move that the Commission approve Coastal Development Permit 2-01-14 subject to conditions specified below.*

Staff recommend a YES vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of Commissioners present.

Resolution:

> *The Commission hereby approves a Coastal Development Permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.*

2.1 Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the applicant or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land: These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

2.2 Special Conditions

1. Use of Drill Muds Prohibited: The project as currently proposed does not include the use of drill muds. If the permittee or contractor proposes to use drill muds, the permittee shall submit for Commission consideration an application to amend this permit to allow the use of drill muds.

2. Water Quality Monitoring:

   a) The permittee shall ensure that construction work does not result in pH levels in the river exceeding 9.0. The permittee shall monitor pH levels in the water column immediately upcurrent and downcurrent of the project area at all times that concrete is being poured within the wetted river channel (i.e., at Pier 9 and at other locations if they are within the active channel area). Monitoring shall be done at least once within the hour before concrete is poured (to obtain background pH levels) and at least once per hour during each concrete pour. The permittee shall send the results of each day's monitoring via facsimile to the Coastal Commission's North Central Coast office no later than the end of the day of each concrete pour. Each submission shall include a site plan showing the sampling locations.

   b) If, after reviewing monitoring results submitted by the permittee, the Executive Director determines that the permittee's Best Management Practices are effectively preventing pH levels from exceeding 9.0, the Executive Director may waive further pH monitoring requirements.

c) If any monitoring result shows a pH of 9.0 or greater, all construction shall cease and shall not recommence except as provided in subsection (d) below. The permittee shall also immediately notify the Commission's North Central Coast Office.

d) Before any construction can recommence following a monitoring result which shows a pH level of 9.0 or greater, the permittee shall submit a supplemental water quality plan for the review and approval of the Executive Director.

i) If the Executive Director approves the supplemental water quality plan and determines that the supplemental plan's recommended changes to the proposed development or mitigation are *de minimus* in nature and scope, construction may recommence.

ii) If the Executive Director approves the supplemental water quality plan but determines that the changes therein are not *de minimus*, construction may not recommence until after an amendment to this permit is approved by the Commission.

3. Water Quality Best Management Practices (BMPs): In addition to the conditions in the water quality certification and streambank alteration permit, the permittee shall implement the following BMPs to ensure acceptable water quality is maintained during project construction:

a) Other than the drill rig, machinery shall not operate directly in the waters of the Russian River.

b) Any materials that fall into the river shall be immediately collected and properly disposed of. All debris and trash at the project site shall be collected and disposed of in trash receptacles located above the channel at the end of each workday.

4. Riparian Vegetation: Prior to commencement of any development, the permittee shall provide to the Executive Director a detailed vegetation survey, including photographs, prepared by a qualified professional showing the location and types of riparian vegetation at the project site, including percent cover, height, and age-class. No later than 30 days after construction is completed and in no case later than November 30, 2002, the permittee shall provide to the Executive Director a site plan showing the areas where vegetation was pruned or removed during staging and project construction. One year following project completion, and in no case later than November 30, 2003, the permittee shall submit to the Executive Director a vegetation survey, including photographs, prepared by a qualified professional documenting the extent and state of revegetation of all areas disturbed by project activities. If the disturbed areas are not fully revegetated to the satisfaction of the Executive Director within one year following completion of work, the permittee shall replant the affected areas with native riparian species. After replanting these affected areas, the permittee shall continue to monitor these areas for a minimum of one additional year following replanting to document site restoration. The permittee shall submit a monitoring report with photographs to the Executive Director one year following replanting. The permittee shall replant the areas and/or undertake other appropriate measures necessary to ensure full restoration of any areas disturbed by the permitted development.

5. Biological Resources – Cliff swallows and bats:

   a) Areas on the underside of the bridge that may be used by cliff swallows for nesting shall be blocked with netting or other materials before construction begins. These materials shall be adequate to prevent the swallows from using the bridge for nesting and shall be maintained throughout construction or until the end of nesting season. Materials used shall be removed as soon as feasible after project construction is completed and in no case later than October 30th, 2002 to allow the birds to use the nest sites the following year.

   b) Any nets used shall be placed and maintained to minimize disturbance to bats using the bridge for night roosting. Nets shall be ¾" mesh or smaller and shall be installed so that they do not hang below the profile of the bridge supports.

   c) The permittee shall ensure that a qualified biologist is at the project site during the first two nights after materials are placed, added, or moved to a different location in order to retrieve and release any bats that may be caught.

6. Spill Prevention, Containment, and Cleanup Plan:

   a) Prior to issuance of this CDP, the applicant shall submit for review and written approval by the Executive Director a detailed plan to prevent, contain, and cleanup any fuel, oil, or hazardous material spills. At a minimum, the plan shall describe the spill equipment to be stored at the project site and the measures to be taken should a spill occur.

   b) The permittee shall undertake development in accordance with the approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the approved plans shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally required.

7. Public Access – Portage for Boating:

   a) Prior to issuance of this CDP, the applicant shall submit for the Executive Director's review and approval a detailed plan describing the portage to be provided during the project. The plan shall include diagrams showing the approximate location of the portage during various stages of the project and a description of signs and buoys to be placed upriver and downriver of the project site warning boaters of the project.

   b) The permittee shall undertake development in accordance with the approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the approved plans shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally required.

8. Placing Riprap: No more than 350 cubic yards of riprap may be placed during project construction, and it shall be placed only within the area of existing riprap on the south river bank and at the base of Pier 9 as generally depicted on Exhibit 3 (Figure 5 of the November 27, 2000 Natural Environment Study Report submitted with the CDP application).

9. Project Timing: Project construction shall occur only from May 15 until October 15, 2002, and project construction within the active river channel shall occur only from June 15 until October 15, 2002. If the permittee or contractor propose to work outside of these allowable work windows, the permittee shall submit for Commission consideration an application to amend this permit.

3.0 PROJECT DESCRIPTION, SETTING, AND BACKGROUND

The proposed project is a seismic retrofit of the Moscow Road Bridge over the Russian River at Duncans Mills, Sonoma County. The bridge is a two-lane reinforced concrete structure approximately 815 feet long and 34 feet wide supported on nine concrete piers. The project includes constructing a gravel work pad across the river channel, drilling ten holes for new bridge piers using a "cast-in-drilled-hole" (CIDH) technique, and placing steel armoring around five existing piers (see Exhibit 1 – Location Map, and Exhibit 2 – Site Plan). The permittee expects work to take up to five months, from May 15 to October 15, depending on river conditions.

The project is on the Russian River approximately five river miles inland from the mouth and within the range of tidal influence. The river channel in this area is relatively flat and meandering. Flows during the proposed summer and early fall construction period average from 150 to 250 cubic feet per second at fairly low velocity, in the range of 3 to 4 feet per second. Habitat types at and near the project site include the open river channel, riparian forest (primarily willow/alter/bigleaf maple), annual grasslands, landscaped areas, and ruderal/disturbed sites. Naturally occurring sand bars often form at the river mouth during periods of low river flow or under various ocean conditions and may sometimes block the entire river mouth. During some periods of low flow or river mouth closures, water in the river can move upchannel due to wind or tidal conditions.

Major project elements include placing ten new CIDH concrete piers in the river channel to provide additional support for the bridge, armoring three other existing bridge piers, and placing riprap at the base of the bridge pier nearest the south river bank (Pier 9) and along that bank below the bridge. The CIDH work would involve drilling ten 60- to 72-inch diameter holes in the riverbed to a depth of 40 to 60 feet at Piers 3, 5, and 9 and at the abutments at each end of the bridge, and pouring concrete within steel casings placed in the holes. The pier armoring would involve placing steel casings around Piers 2, 4, 6, 7, and 8. The riprap work would involve placing about 350 cubic yards of riprap at the base of Pier 9 and at the bridge abutment on the south bank to deter undercutting.

The proposed construction method would involve constructing a gravel work pad in the river channel to allow access under the bridge for the drilling equipment, bulldozers, trucks, and other equipment. The work pad would require about 2500 cubic yards of clean, river-run gravel to be imported to the project site. The contractor would extend the gravel pad out from the north bank

of the river in at least three stages – first, from the north portion of the river channel near Pier 6 to Pier 7 to allow CIDH drilling, then to Pier 8, and finally across the full width of the channel to allow drilling at Pier 9 and riprap placement along the river's south bank. As the contractor builds the gravel pad, culverts would be placed to allow the river to flow through the work area. The gravel pad would have a maximum width of approximately 37.5 feet on either side of the bridge's centerline and would be about two to four feet above water level. The work pad would also provide access to Piers 6, 7, and 8 to allow the contractor to install steel casings around those piers. Only Piers 7 through 9 are within the summer low-flow channel area; the rest are generally above the level of the river's summer flows. Associated work would include excavating a temporary sediment stilling basin in a gravel terrace along the north river bank, and placing beams on the new CIDH piers to connect them to the bridge.

When construction is complete, the contractor would remove the culverts and notch and grade the gravel pad to allow the river to flow through. The gravel would be left in place to be moved downstream during the higher flows associated with the fall and winter rainstorms.

3.1 Other Permits and Approvals

The project is also subject to the following permits and approvals:

- Sonoma County Permit and Resource Management Department – General Plan Consistency Determination, September 8, 1999.
- Sonoma County CEQA exemption – December 18, 2001.
- Department of Fish and Game (DFG) – 1601 Lake and Streambed Alteration Agreement No. R3-2001-0220, issued November 13, 2001.
- Regional Water Quality Control Board (RWQCB), North Coast Region – Waiver of Waste Discharge Requirements and Issuance of Clean Water Act Section 401 Water Quality Certification, issued June 18, 2001.
- State Lands Commission – project considered maintenance under Lease #PRC 3349.9, per letter of June 1, 2001.
- Federal Highways Administration – Categorical Exemption, December 11, 2001.
- National Marine Fisheries Service (NMFS) – Biological Opinion, July 23, 2001.
- U.S. Army Corps of Engineers – provided coverage under Nationwide Permits #3 (Maintenance) and #33 (Temporary Access, Construction, and Dewatering), August 23, 2001.
- U.S. Fish & Wildlife Service (USFWS) – Endangered Species Act, Informal Consultation, November 30, 2001.

4.0 FINDINGS AND DECLARATIONS

Standard of Review

The standard of review is whether the project complies with the policies of Chapter 3 of the Coastal Act. The Commission may also refer to the provisions of the certified LCP for guidance.

4.1 Hazard Prevention

Coastal Act Section 30253 states:

> *New development shall:*
>
> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> (2) *Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs...*

In addition, the Sonoma County certified LCP (p. III-21) includes the following policy:

> *Geologic Hazards: Anticipate the effects of, and develop a plan in response to a major earthquake generated along the San Andreas fault zone.*

The primary purpose of the proposed project is to reinforce an existing bridge to prevent damage during major seismic events. It is one of a series of projects to strengthen bridges throughout Sonoma County. Constructing the project as conditioned will maintain public access to the coastal zone, will provide additional assurance of emergency access following major earthquakes, and will reduce the risk of impacts to coastal resources due to damage that may be caused by bridge failure. The retrofit project has been designed and would be constructed in accordance with state and county engineering requirements. The project would not result in any measurable changes to stream capacity or flow velocities in the river channel. As such, the Commission finds that the project is consistent with and will carry out the requirements of Coastal Act Section 30253.

The project is also meant to reduce the effects of erosion on the existing bridge structure by placing approximately 350 cubic yards of additional riprap under the bridge on the river's relatively steep south bank and at the base of Pier 9 where river flows have caused slight erosion and undercuts. Placing riprap at these locations is meant to stabilize the structure and maintain the existing shoreline. The 1601 permit issued by DFG requires that riprap be placed without removing existing trees from the river bank. **Special Condition 8** prohibits placement of riprap beyond the area described in the project description. **Special Condition 4** requires the permittee to identify and monitor areas where riparian vegetation is removed or pruned and to replant areas where it does not revegetate naturally. The Commission finds that these measures are adequate to assure that the proposed project will neither create nor contribute significantly to erosion, geologic instability, or destruction of the site consistent with the requirements of Coastal Act Section 30253(2).

Conclusion:

For the reasons above, the Commission finds the project is consistent with Section 30253 of the Coastal Act.

4.2 Biological Resources

Coastal Act Section 30231 states:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas, that protect riparian habitats, and minimizing alteration of natural streams.*

Coastal Act Section 30240 states:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

The Sonoma County certified LCP establishes that the riparian corridors on both sides of the Russian River are part of Sanctuary – Preservation Areas:

> *...the most environmentally sensitive areas along the coast. They correspond to "Environmentally Sensitive Habitat Areas" as defined in the 1976 coastal Act Sections 30107.5 and 30240. No development other than nature trails and resource dependent uses shall be allowed within such areas. There shall be no significant disruption of habitat values. Pesticide and herbicide applications would not be allowed within or affecting such areas unless it is necessary to maintain or enhance the functional capacity of the Sanctuary – Preservation area.*

The LCP (Chapter 3, pages 13, 16, & 17) also includes the following policies applicable to riparian areas, anadromous fish streams, and areas of open water:

> *Riparian –*
> *9. Prohibit construction of permanent structures within riparian areas as defined, or 100 feet from the lowest line of riparian vegetation, whichever is greater, except development dependent on the resources in the riparian habitat, including public recreation facilities related to the resource. Any development shall be allowed only if it can be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of the riparian habitat. The riparian area or 100 foot wide buffer zone should generally be maintained in a natural, undisturbed state...*

10. Require erosion-control measures for projects affecting the riparian corridor.

11. Prohibit the removal of vegetation except commercial timber, subject to an approved timber harvest plan, from the riparian corridor unless it is shown to be essential to continued viability of the wetland.

12. Prohibit filling, grading, dredging, excavation or construction in the watercourse of a riparian corridor unless it is shown that such action will maintain the value of the area as a habitat for wildlife and aquatic organisms and is compatible with continued viability of the habitat.

13. Prohibit pesticide and herbicide application in a riparian protection zone of 100 feet above the lowest line of streamside vegetation, or within riparian areas as defined, whichever is greater.

Anadromous Fish Streams –
68. Maintain flows in streams identified as anadromous fish habitat at a minimum flow level as required to continue their use as a fish spawning area.

69. Stop all stream diversions when streamflow falls below minimum flow standards until stream flows return to levels above the minimum standards.

70. Prohibit dredging in all anadromous fish streams.

71. Prohibit dams or other structures which would prevent upstream migration of anadromous fish in streams designated as "anadromous fish habitat" unless other measures are used to allow fish to bypass these obstacles. Any bypass measures should be approved by the Department of Fish and Game.

Open Water –
76. Prohibit construction of new structures, and dredging, filling or diking in open water except in accordance with Section 30233 of the 1976 Coastal Act. Open water shall be defined in a manner consistent with the Commission's Wetlands Guidelines.

77. Prohibit dredging during periods of fish migration and spawning, and limit dredging to the smallest area feasible.

In addition, the Sonoma County General Plan includes the following provisions:

OS-3h: Design public works projects to minimize tree damage and removal along Scenic Corridors. Require revegetation following grading and road cuts.

OS-4c: Require a biotic resource assessment to develop mitigation measures if the Department determines that the project could adversely impact a designated Critical Habitat area.

OS-5h: Within a Riparian Corridor, roadway and utility construction should seek to minimize and mitigate, where feasible, damage to riparian areas. Minimize vegetation removal for necessary stream crossings. Grading, filling, or construction shall not substantially diminish or divert any stream flow or result in any substantial increase in bank instability or erosion.

The proposed development would take place in and immediately adjacent to the Russian River and its associated riparian habitat. Human activities have substantially altered the Russian River watershed, its riparian corridors, its flows, and its water quality. The RWQCB considers this reach of the river impaired due to excess sediments and siltation, and has included the river on the state's Clean Water Act Section 303(d) list of impaired waterbodies. Despite the alterations to the watershed, the project site continues to provide habitat for a number of species, including several considered endangered or threatened under federal or state law, and several listed as Species of Concern (see Table 1 below).

Biological Resources – Water Quality: The proposed project would include a risk of water quality degradation and spills of fuel, oil, or other substances; however, the applicant has incorporated into the project description a number of measures contained in the water quality certification and streambank alteration permit that are meant to avoid or minimize possible exceedances of water quality standards, including the following:

- Project Timing: The project is scheduled to occur between May 15 and October 15, with work in the active river channel itself limited to the period between June 15 and October 15 only. This construction work window is primarily meant to avoid or minimize possible impacts to the various anadromous fish species, but it also results in the work occurring during the lower flow season in the river, which results in less risk of spills and injury or damage to construction personnel and equipment.

- Erosion Control: The applicant is requiring the contractor to use erosion control measures on all erodable surfaces (i.e., not on areas of cobble or gravel). These include hydroseeding and installing a jute or equivalent biodegradable mesh, and grading post-project contours to match pre-project contours.

- Turbidity: Turbid water generated during the CIDH drilling process would be pumped to a settling basin to be constructed in the existing gravel bar on the north bank of the river. The contractor would excavate and remove sediment accumulated in the basin to an area outside the river channel where it cannot flow back into the river, and would regrade the settling basin to its pre-project configuration at the end of project construction.

  Debris, soil, silt, etc., would not be placed where it may be washed into waters of the State, and would not be deposited within 150 feet of any high water mark.

- Maintain Acceptable pH Levels: The contractor would pump water coming into contact with wet concrete and having a pH of greater than 9.0 to a transport truck for storage, treatment, or transport. This water would not be released where it can flow into surface waters until the pH is below 9.0.

- Fueling and Maintenance: The drill rig and crane would be stationary for several days at a time and would be refueled in place. All other equipment, however, would be fueled and maintained outside the river channel (top of bank to top of bank). The contractor would place spill absorbent materials under all stationary equipment to capture any leaks. At night, the contractor would move motorized equipment outside of the river channel (top of bank to top of bank). The contractor would not use vehicles or equipment that leak fuel or oil.

  All vehicle and equipment washing would take place outside of the river channel and outside of areas where washwater could drain to the river.

- Excavated Material: The contractor would remove the material excavated during the CIDH drilling operations to areas outside the river channel (top of bank to top of bank).

- Site Restoration: The contractor would excavate any accumulated sediment trapped in the project's temporary sediment basin and regrade the area to pre-project contours.

In addition to those measures listed above, the Commission imposes several other conditions to ensure conformity to the Coastal Act and to adequately protect coastal resources.

The original project description contemplated the use of drill muds during the CIDH drilling operations. Drill muds are a mix of clay and other chemical additives used to lubricate the drill bit and to keep the drill from seizing up during difficult operating conditions. The composition of the numerous types of drill muds varies widely, and discharges of drill muds to a waterbody can result in toxicity or exceedances of water quality criteria, depending on the type and concentration of drill mud used.

The applicant has since specified that the contractor would not use drill muds. The contractor would instead use steel casings during drilling to keep the drilled holes open. Because the applicant does not propose to use drill muds, the Commission's consideration of this permit application does not evaluate the potential impacts of their use or corresponding mitigation measures. Therefore, **Special Condition 1** prohibits the use of drill muds and requires the permittee to apply for a permit amendment if the permittee proposes to use drill muds, to allow the Commission to evaluate potential impacts to coastal resources.

The CIDH technique also requires that wet concrete be poured directly into the holes drilled within the river channel. When wet concrete comes into contact with water, it can result in pH levels above those protective of aquatic life. Water quality criteria established in federal and state regulations meant to protect aquatic life allow a pH range of 6.5 to 9.0 in freshwater. By requiring the contractor to use steel casings in the CIDH operations, the permittee would minimize the amount of high pH water that may be generated during the operation. To further minimize effects of high pH, the contractor would be required to pump water from the CIDH holes to a storage tank or settling basin where water would be tested for pH and turbidity before being released to flow into the river. Pumps would be of adequate capacity to ensure that water needing storage and/or treatment is removed to the storage area without affecting water quality outside the immediate vicinity of the concrete pour. To further ensure water quality is

maintained, **Special Condition 2** would require the contractor to monitor river water in the immediate area during times when wet concrete is being poured within the river channel to ensure pH levels remain below 9.0. If pH levels exceed 9.0, the permittee is required to cease construction and recommence only after the permittee has proposed and received approval of a supplemental water quality plan.

In addition to the BMPs proposed as part of the project, the Commission requires several additional BMPs needed to protect coastal resources. **Special Condition 3** would require the permittee to remove all debris, trash, and other deleterious materials from the river and project site and would prohibit the use of machinery directly in the river (other than the drill rig).

Following construction, the permittee must also reseed or replant areas where vegetation is removed or bare soil is left exposed. **Special Condition 4** would require the permittee to provide a pre-project survey of vegetated areas at the project site, identify where vegetation is removed during project construction, monitor the natural rate of revegetation, and replant areas, if necessary.

Biological Resources – Endangered and Threatened Species, and Species of Concern: Several biological surveys have been done at or near the project site. The area provides known or probable habitat for several listed species, as shown in Table 1 below.

Table 1: Species of Special Concern at Moscow Road Bridge

Species Name:	**Type of Listing (Endangered, Threatened, Species of Concern, Other):**	**Known or Probable Habitat:**	**State or Federally-Listed:**
Coho salmon, Central California Coast (*Oncorhynchus kisutch*)	Threatened	Known	Federal
Chinook salmon, California Coastal (*Oncorhynchus tshawytscha*)	Threatened	Known	Federal
Steelhead, Central California Coast (*Oncorhynchus mykiss*)	Threatened	Known	Federal
Green sturgeon (*Acipenser medirostris*)	Species of Concern	Probable	State
Pacific lamprey (*Lampetra ayresi*)	Species of Concern	Probable	State
Russian River tule perch (*Hysterocarpus traskii pomo*)	Species of Concern	Probable	State
Western pond turtle (*Clemmys marmorata*)	Species of Concern	Probable	State
Mexican free-tailed bat (*Tadarida brasiliensis*)	Species of Concern	Probable	State and Federal
Pallid bat (*Antrozous pallidus*)	Species of Concern	Probable	State
Cliff swallow (*Petrochelidon pyrrhonota*)	Protected under Migratory Bird Treaty Act	Known	Federal

The salmonid species use the project area primarily as a migration route and for rearing habitat. The green sturgeon, tule perch, and lamprey may also use the project area at various stages of their life cycles. The Western pond turtle may use the river and gravel bars at the project site, but they are generally found in areas with denser riparian cover. The cliff swallows and bats use the bridge for nesting and roosting, respectively. The applicant also obtained an informal consultation from the USFWS stating that the project was not likely to adversely affect the California freshwater shrimp, which are generally found in smaller and higher gradient tributary streams rather than the mainstem of the Russian River.

The measures noted in the Biological Resources – Water Quality section above will not only serve to avoid or minimize adverse impacts to water quality, but will also help prevent adverse impacts to species and habitat in the project area. The applicant has incorporated a number of measures from the water quality certification and streambank alteration permit meant to avoid or minimize impacts to the species noted above.

For fish and aquatic species:

Project Timing: The project is scheduled to occur between May 15 and October 15, with work in the active river channel itself limited to the period between June 15 and October 15 only. This construction work window avoids all significant adverse impacts to the various anadromous fish species. It completely avoids spawning and downstream migration periods for coho, but partially coincides with both upstream and downstream migration of chinook, with downstream migration of steelhead, and with the rearing period of all three species in the lower river. Although construction partially coincides with the chinook and steelhead migration and with rearing of all three species, the National Marine Fisheries Service, in its Biological Opinion on the proposed project, has determined the project will have a minimal adverse effect on the fish.

The three salmon species use the river during the following time periods:

- Coho salmon generally begin their migration from the ocean to their natal streams after the first heavy rains of late fall or early winter. This migration generally peaks in December and January, and may continue into March. Juvenile coho will initially seek out shallow water in these streams and then move into deeper pools, but will stay in freshwater during their first year. In the spring, yearling juveniles will move downstream and undergo smoltification, which prepares them for marine waters. They generally move into ocean waters between March and May each year.

- Chinook salmon have at two types of life history – ocean-type fish and river-type fish. The chinook in the Russian River are ocean-type fish. They generally migrate to freshwater from the ocean in fall or winter, and their offspring generally migrate out to the ocean during the following spring. Their inmigration may start as early as June, but it generally peaks in September and October, and ends in December. Juvenile chinook emerge between December and April, and outmigration to the ocean occurs between April and July. They use estuarine areas during the early summer while undergoing smoltification.

- Steelhead also have two types of life history – summer-run and winter-run. The steelhead in the Russian River are all winter-run. Winter-run steelhead generally migrate in from the ocean from December through April. Juvenile steelhead reside in freshwater at all times during the year, and generally spend two years in freshwater before moving into the ocean during spring and summer.

The salmon and the other fish species are in the river at all times during the year and therefore, the proposed development could not entirely avoid potential impacts. However, the applicant has included measures described below that would result in avoidance of any significant impacts to the fish, including using clean, river-run gravel that will create very low levels of turbidity, requiring gravel to be placed in the river in a manner that will not create backwaters or pools that may trap fish, requiring a qualified biologist to be on site to direct gravel placement and to remove any fish that might inadvertently be trapped, and placing culverts in a manner that flow velocity in the river will not prevent fish from moving upstream or downstream. Therefore, the project will not result in significant adverse impacts to any of the listed fish species

Use of Clean, Imported Gravel: The DFG and NMFS identified this reach of the river as having less than optimum gravel supplies for fish use. Gravel mining in the Russian River over more than a century has taken millions of tons of gravel out of the river system, affecting the river hydraulics and channel dynamics, and changing the habitat characteristics of the lower river. Rather than use gravel from nearby gravel beds, the contractor is required to import approximately 2500 cubic yards of clean river-run gravel to construct the work pad. At the end of project construction, the contractor will remove the temporary culverts from beneath the gravel pad, notch and smooth out the gravel, and allow natural river flows to carry the gravel downstream and settle out in the lower reaches of the river. This will provide a slightly increased source of gravel in the lower river to make up for some of the extensive losses due to gravel mining further upstream.

Gravel and Culvert Placement to Allow Fish Passage: Gravel imported for the work pad will be placed by pushing it out from the bank in a way that will not impound water or trap fish. The applicant will have a qualified biologist on site to direct work and move any stranded fish, if necessary.

The project design will incorporate enough culverts to allow the river to flow through the gravel work pad at normal velocities to allow fish passage and at volumes sufficient to prevent the river from backing up behind the work pad. Culverts will be at least three feet in diameter and enough parallel sections of culvert will be used to ensure there is no detectable increase in water elevation in the river upstream of the gravel work pad.

Minimize Impacts to Riparian Vegetation: As stated above, the Sonoma County LCP establishes that the riparian corridors on both sides of the Russian River are part of Sanctuary Preserve Areas that are considered the most environmentally sensitive along the coast. Accordingly, the associated riparian corridors are considered ESHA.

The riparian vegetation in this reach of the river consists largely of brushy willow growth, which is highly adapted to an environment subject to regular disturbances such as flooding and gravel movement. The work associated with the proposed project will be much less disruptive than

natural disruption that occurs most winters when the willows are submerged during high flows on the river or when they are damaged by large woody debris moving down the stream channel.

The project, even as conditioned to avoid or minimize impacts, is expected to result in some minor adverse effects due to temporary removal of riparian vegetation; however, as stated above, these effects are well within the natural disturbance regime in this area of the river. The applicant has included several measures to avoid or minimize the effects of construction on the riparian vegetation, including siting most of the project work outside of vegetated areas, requiring the contractor to minimize vegetation removal or pruning, and prohibiting the contractor from removing existing trees in the area where riprap will be placed along the south bank of the river. The total area of vegetation anticipated to be disturbed will be approximately 1000 square feet.

Additionally, the Commission is requiring **Special Condition 4** to further reduce the minor effects of the project. This condition will require the permittee to monitor and replant disturbed areas that do not naturally regrow within one year of project completion.

With the mitigation measures that are proposed and required, the project as conditioned will not result in a significant disruption of riparian habitat values within the ESHA. Therefore, the Commission finds that the project, as conditioned, is consistent with Section 30240 of the Coastal Act.

Other Measures to Maintain or Enhance Habitat: Large woody debris in the project area will be moved away from the construction areas, but it will remain within the river channel where it can be washed into the river during winter high flows. Large woody debris, such as rootwads, tree boughs, and other similar material, provides several habitat benefits for fish – it increases channel diversity by creating areas of scour, backwater eddies, and pools that fish use for resting; it can provide additional hiding areas for small fish in among branches or roots; and the insects and other organisms that live on the debris serve as a source of food for fish.

For cliff swallows:

Cliff swallows (*Petrochelidon pyrrhonota*) use the underside of the bridge as a nesting site. They are locally and regionally abundant in California. As their name implies, they generally nest on cliffs and other natural vertical structures, but have benefited from the increase in nest sites provided by human-built structures, such as bridges and buildings. They are not considered endangered, threatened, or a species of concern, but they are protected under the Migratory Bird Treaty Act (MBTA), as implemented by the U.S. Fish and Wildlife Service (USFWS).

The project as proposed would clearly disturb swallows and their nests during nesting season, which generally runs from spring each year until the young have fledged in August or September. There are currently several dozen nests on the bridge from previous nesting seasons. The applicant evaluated several different options to avoid or minimize impacts to the swallows, including changing the construction schedule to avoid the nesting season, removing the nests before nesting season starts, and putting up nets or other materials to prevent the swallows from gaining access to the nests before and during the nesting season. Each of the options would require compliance with provisions of the MBTA.

Changing the construction schedule would have required work to occur in the fall and winter during periods of higher river flows. This would result in increased interference with anadromous fish migration and would expose construction personnel and equipment to more dangerous river conditions. Removing the nests or preventing access to the nests are both allowable under the MBTA, but only during times outside of nesting and fledging season when the nests are not active. The Department of Fish and Game requires in its streambank alteration permit that the nests be removed before construction starts, but prohibits removal of active nests. The USFWS also prohibits removal of active nests, but allows removal before nesting season starts, which is generally sometime in March each year.

Of the two methods that would prevent the birds from using the nests – removal or blocking access – blocking access might result in less overall impact to the birds, as it would disturb nesting for one season only, and would not require the swallows to rebuild the nests at this site in subsequent years. However, under natural conditions, swallows generally abandon nest areas after using them for several years because the nests become infested with parasitic insects. The swallows will then avoid the area for several years and will not return to use or rebuild the nests until after the insects die out. Therefore, removing the nests is not likely to result in a significantly differently impact to the swallows than would occur under natural conditions, and may actually improve site conditions in subsequent years by removing existing nests with their existing parasite population. Additionally, merely blocking access to the nests rather than removing them may increase the likelihood that swallows would attempt to gain access to existing nests rather than seek out other suitable nest sites nearby. Accordingly, the applicant's proposal to remove the nests prior to construction is consistent with the provisions of Section 30240 because the species is not endangered, threatened, or a species of concern, and the nests will be removed in compliance with the provisions of the MBTA.

Because the swallows may attempt to rebuild at these nest sites after nests are removed and during construction, **Special Condition 5** requires the permittee to block access to the likely nest sites on the bridge to prevent new nests from being built during project construction. By preventing the swallows from occupying the bridge during construction, this condition will minimize impacts to the swallows by allowing the project to be completed during a single nesting season rather than have it delayed and stretch over two or more seasons.

For bats:

Along with cliff swallows, the underside of the bridge is used by bats for night roosting. A 1999 survey provided by the applicant showed that bats use the bridge at night, but found no evidence of a maternity colony or day roosting. The survey did not determine which species of bats used the bridge, but of the species present in Sonoma County, four are likely to use bridges as roost sites – the pallid bat (*Antrozous pallidus*), the big brown bat (*Eptesicus fuscus*), the Yuma myotis (*Myotis yumanensis*), and the Mexican free-tailed bat (*Tadarida brasiliensis*). Of the four, the pallid bat is listed as a state species of concern, and the Mexican free-tailed bat is listed as both a state and federal species of concern.

Because project work is scheduled to occur only during daylight hours, and because there is no evidence of a maternity colony or day use, the project is expected to result in minimal, if any,

adverse effects on bats. Bats may be temporarily affected if the permittee places materials on the bridge to prevent swallows from nesting; however, because the bats generally use different areas of the bridge than do swallows, effects should be minimal if these materials are placed so they only prevent access to the inside corners of the bridge supports used as swallow nest sites. The swallow nest sites can be blocked using netting, wire mesh, wooden baffles, or other similar materials placed where nests are located. **Special Condition 5** would specify the size and location of these materials so that it both prevents the swallows from nesting and does not adversely affect bats. In addition, bats generally detect the location of new obstacles very quickly and learn to avoid them. To ensure bats are minimally affected, **Special Condition 5** also requires the permittee to have a qualified biologist on site during the first two nights following placement of these materials and after any changes to their locations during the project to ensure any bats caught are removed and released. The condition also requires the materials to be completely removed as soon as practicable when construction is completed.

Conclusion:

For the reasons above, the Commission finds that, as conditioned, the project is consistent with Sections 30231 and 30240 of the Coastal Act.

4.3 Filling in Coastal Waters

Section 30233 of the Coastal Act states:

> *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:...*
>
> *...(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
>
> *(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.*
>
> *(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary...*
>
> *(d) Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse*

environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

In addition, the Sonoma County General Plan includes the following policies applicable to the Moscow Road Scenic Corridor and Russian River designated Riparian Corridor in the Coastal Zone:

OS-5h: Within a Riparian Corridor, roadway and utility construction should seek to minimize and mitigate, where feasible, damage to riparian areas. Minimize vegetation removal for necessary stream crossings. Grading, filling, or construction shall not substantially diminish or divert any stream flow or result in any substantial increase in bank instability or erosion.

The proposed development involves the placement of approximately 2500 cubic yards of temporary fill in the Russian River to construct a gravel work pad. In addition, ten new 60-inch to 72-inch diameter piers will be placed alongside the bridge, and steel casing will be placed around 5 existing piers, resulting in approximately several hundred cubic yards of permanent fill. The purpose of this fill is to provide for the necessary seismic retrofit of an existing public roadway bridge by a public agency as required to meet state seismic safety standards. The proposed seismic retrofit is necessary to ensure structural and geologic stability on the site. The bridge will not be expanded to provide for additional traffic lanes or capacity. As such, the Commission finds that the proposed fill may be permitted as an incidental public service purpose in accordance with Coastal Act Section 30233(a)(5), if: (1) there is no feasible less environmentally damaging alternative; and, (2) feasible mitigation measures have been provided to minimize adverse environmental effects.

Filling in Coastal Waters – Alternatives Evaluated: The selected construction alternative, extending a gravel pad across the river channel, was chosen because it results in impacts to only one side of the riverbank, and provided approximately 2500 cubic yards of gravel to this lower stretch of the river for habitat improvement. Agencies evaluating river conditions and habitat characteristics for this project (including Sonoma County Permits and Resources Department, DFG, RWQCB, and NMFS) determined that adding gravel within the river channel at this project location would provide habitat benefits. The lower reach of the Russian River has very little gravel substrate, due in part to the low gradient of the channel for several miles upstream and also due to extensive gravel mining occurring further upstream. The other permits and approvals issued for this project, including the 1601 permit and the 401 certification, require the applicant to import clean, river-run gravel to the site and require that the gravel remain in the channel after project work is completed. At the end of construction, the contractor will pull the culvert pipes and notch the gravel work pad to allow the river to flow through it and move the gravel further downstream during fall and winter high flows.

The applicant evaluated alternative construction methods that would either not require gravel placement or would require less gravel placement in the river channel. The alternatives included constructing a temporary bridge just above water level to allow equipment access under the road bridge, and constructing a gravel work pad from each riverbank rather than extending a single gravel pad across the river from the north bank. The temporary bridge alternative would have a

somewhat smaller footprint and would allow the river to flow more freely under the work area. It was not chosen because its impacts to river conditions and public access would have been similar to either gravel work pad alternative and it did not include the mitigating element provided by adding gravel to this stretch of the river. The alternative of constructing gravel work pads from both the north bank and the south bank would have resulted in fewer short-term impacts in the river channel because less of the riverbed would be covered and the gravel pads would not extend across the entire channel. This alternative was not selected, however, because its long-term benefits of additional gravel in the river channel were similar to the selected alternative but its impacts were greater – namely, it would have required that extensive areas of riparian vegetation be removed along the steep south bank of the river, that a ramp be constructed down that steep bank, and that an additional equipment staging area be constructed on the south side of the river. The selected alternative includes none of these impacts but provides a similar or greater level of benefits. Therefore, the Commission finds that there is no feasible less environmentally damaging alternative to the project as proposed.

Mitigation Measures: Along with measures described above that avoid or minimize adverse impacts, the proposed development includes several additional mitigation measures. The use of clean, river-run gravel will result in low turbidity during gravel placement and will result in placement of gravel similar to that which would occur under natural river conditions. The gravel will be placed by pushing it out from the north bank of the river in a manner that further avoids turbidity and avoids creating areas of backwater that might trap fish. The permittee will have a qualified biologist on site during gravel placement to ensure fish are not trapped and to move any fish that might inadvertently be trapped. Also, using steel casings around the piers will provide additional strength and protection for the development with minimal additional fill. Therefore, the Commission finds that feasible mitigation measures have been provided that minimize adverse environmental impacts.

Conclusion:

For the reasons above, the Commission finds the project, as conditioned, is consistent with Section 30233 of the Coastal Act.

4.4 Public Access and Recreation

Coastal Act Section 30210 states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Coastal Act Section 30211 states:

> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Coastal Act Section 30214 states:

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.

(2) The capacity of the site to sustain use and at what level of intensity.

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.

(c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

Coastal Act Section 30220 states:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Coastal Act Section 30224 states:

Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.

The Moscow Road Bridge provides access to the coastal zone, primarily for residents who live along the south shore of the Russian River between Monte Rio and the coast. The project would result in temporary bridge closures during the construction period and temporary loss of access to a portion of the river for recreational boating. There would also be minor impacts to traffic at and near the project site due to trucks hauling gravel for the work pad.

Public Access and Recreation – Bridge Closures: The contractor will occasionally close the bridge to vehicle and pedestrian traffic during the construction period to allow drilling or to move construction equipment. The applicant estimates the bridge would have to be fully or partially closed for up to several days at a time for a total of approximately four weeks during the anticipated four-month construction period. The full bridge closures would occur during daytime work hours; however, the contractor will allow at least one-way traffic during construction when feasible.

The bridge is used primarily to provide local access to a five-mile section of the south shore of the Russian River. State Highway 116, which extends along the north bank of the Russian River, provides the main regional access to the area. It connects with Highway 1 several miles west of the Moscow Road Bridge. There is another bridge about four miles upriver at Monte Rio that connects with Highway 116 and also provides access to the south bank of the river. The other roads leading off of Moscow Road on the south side of the river are dead-ends and do not connect to other areas.

People wishing to access the areas served by the Moscow Road Bridge can reach the same areas by using the other bridge at Monte Rio. There are no repairs scheduled for the Monte Rio Bridge during construction at the Moscow Road Bridge, and traffic flows at the Monte Rio Bridge are generally below capacity; therefore, the Commission finds that the project's effects on access will be minimal and temporary, and limited to slightly increased travel time to or from the Monte Rio Bridge for some area users.

Public Access and Recreation – Boating: The project is located on the Russian River at River Mile 5. Kayakers and canoeists use this reach of the river for recreation during the months proposed for the project work; however, the primary recreational use by boaters is upstream of the project site. There are several boat launch and takeout points upriver that serve up to several dozen boaters per day during the summer and fall, but according to the applicant and the DFG biologist, most boaters do not venture downriver to the immediate project area.

Boats will not be able to pass under the bridge for several weeks during project construction when the gravel work pad extends across the full width of the river channel. The work pad will be built in stages from the north bank of the river – it will first extend from at or near Pier 6 to Pier 7, then to Pier 8, and finally to Pier 9 and the south bank. During typical summer flow conditions, only Piers 7 through 9 are within the wetted river channel, so the initial construction phases at Piers 1 through 6 should not interfere with boating. To minimize the amount of time the gravel pad extends the full width of the river, the applicant has scheduled the project so that work on Pier 9 and the south bank will occur only for two to four weeks during the in-water construction phases of the project.

To mitigate for this temporary loss of access, the contractor will provide a portage through or around the project site. The portage location may shift as the project proceeds, but it will be available to boaters during all but a few days of the project when the contractor is constructing the gravel work pad. **Special Condition 7** would require the contractor to submit a plan for review and approval by the Executive Director that shows the portage location during various phases of the project, and that describes signs and buoys that will be placed above and below the project site to warn boaters. Boaters will therefore be able to use the river or the portage for all but a few days during the project's work window. The Commission therefore finds that, as conditioned, the proposed development will not significantly affect public recreational boating.

Public Access and Recreation – Additional Truck Traffic: The applicant estimates that the work pad will require delivery of about 2500 cubic yards of gravel. This would require about 250 trips by trucks holding 10 yards of gravel each. With trucks anticipated to arrive at 10-minute intervals, this would require about four 10-hour days of delivery. To minimize impacts along the shoreline, the applicant is requiring the contractor to bring in gravel as it is used to construct the work pad rather than storing excess gravel on site. This will result in gravel being delivered in three different stages during the project.

The contractor would use Highway 116 as the delivery route. Current traffic patterns on this stretch of Highway 116 show a peak hourly volume of 700 to 800 vehicles and an average daily traffic volume of 6100 to 7900 vehicles; thus, the additional truck trips would add a very small percentage increase to existing volumes. Therefore, the Commission finds that the traffic generated by the proposed development will not significantly interfere with public access to the coast.

Public Access and Recreation: The proposed project will result in temporary impacts to public access in the areas immediately adjacent to the bridge due to construction activities or heavy equipment operations, but will not result in any permanent or longer-term impacts to public access. In addition, there are several areas at or near the project site – the Duncans Mills Campground, just downstream from the project site, and Cassini's Campground, upstream from the project site – which allow river access for a day-use fee. There has also been been some ongoing informal public access to the river through the County's right-of-way for the bridge and through the adjacent Russian River Sportsmen's Club. Accordingly, the Commission has determined that the proposed development will result in only minor and temporary impacts to public access.

Conclusion:

For the reasons above, the Commission finds the project is consistent with Sections 30210, 30211, 30214, 30220, and 30224 of the Coastal Act.

4.5 Oil and Fuel Spills

Coastal Act Section 30232 states:

> *Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

The proposed project requires the use of machinery and equipment that will use and store up to several hundred gallons of diesel fuel, oil, and petroleum products in fuel tanks near or immediately adjacent to the Russian River. Equipment to be used at the project site includes a drill rig, backhoes, dozers, excavators, concrete trucks, and various support trucks. There is also a potential of spills from trucks being used to bring gravel to the project site.

Consistency with Section 30232 of the Coastal Act requires meeting a two-part test – first, does the development provide protection against project-related spills; and second, does it provide effective containment and cleanup should spills occur?

Protection Against Spills: The project will require use and storage of up to several hundred gallons of fuel and oil at and near the project site, close to or within the channel of the Russian River. The applicant is taking the following measures to protect against spills:

- The contractor will be required to produce a spill prevention and cleanup plan as part of project startup.
- Equipment will be fueled using a service vehicle that will be kept outside the river channel.
- No hazardous materials, including fuel, will be stored within 75 feet of the water, except within fuel tanks of machinery needing to operate in that area.
- The contractor will be required to have enough absorbent material at the job site to fully contain any spilled or leaked fuel.
- The contractor is required to immediately respond to any spill by contacting the local spill response authorities.

In addition, other permits issued for the project and incorporated into the project description prohibit the applicant from using vehicles or equipment with leaks, require that vehicles and equipment be stored outside of the river channel unless a drip pan is secured to them, and require equipment to be washed only outside of the river channel in areas where runoff will not drain to the river.

Special Condition 6 requires the applicant to submit a spill plan for review and approval by the Executive Director. This plan must include a detailed description of spill prevention, containment, and cleanup equipment to be maintained on site, the measures that will be

implemented to prevent, contain, and clean up any spills, and contact information for responding to spills. The Commission finds that with these measures in place, the proposed project meets the first test of Coastal Act Section 30232.

Spill Containment and Cleanup: If spills occur during project construction, they could have an immediate impact on water quality and habitat in the Russian River. The project's work window within the river channel of June 15 to October 15 is generally the lowest flow period in the river, and the project location is in an area where flow velocities are relatively low; however, spills could affect water quality and habitat if adequate containment and cleanup measures are not properly implemented.

As part of project requirements, the applicant is requiring that the contractor notify the County and the RWQCB of any spills. In addition, as stated above, **Special Condition 6** requires submittal of a spill plan that includes detailed response measures that will be implemented in case of a spill.

The Commission has determined in past decisions that spills cannot be effectively contained or cleaned up when they occur in open waters. However, because accidental spills from this facility would be subject to the measures cited above, and because they would occur in a relatively low flow, quiescent riverine environment well away from open ocean waters, they may be effectively contained and cleaned up within this area. The Commission therefore finds that with these measures in place, the proposed project meets the second test of Coastal Act Section 30232.

Conclusion:

The two tests of Section 30232 are first, to ensure protection against spills, and second, to ensure that effective containment and cleanup is provided if spills occur. The Commission finds that the project meets the first test because the BMPs described in the above documents and as required by **Special Condition 6** provide significant protection against spills. The Commission finds that the project meets the second test because these BMPs include measures to effectively contain anticipated spills within relatively confined areas of the river channel, and to clean up spills using spill cleanup equipment and personnel available at the project site.

For the reasons described above, the Commission finds the project, as conditioned, is consistent with Section 30232 of the Coastal Act.

4.6 Scenic and Visual Qualities

Coastal Act Section 30251 states:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded area.*

The project area is also partially visible from the Highway 116 Scenic Corridor established in the certified LCP (Chapter 7, page 39). Visual resource provisions of the LCP applicable to the proposed project include the following:

> *View Protections*
> *1. Prevent development (including buildings, structures, fences, paved areas, signs, and landscaping) from obstructing views of the shoreline from coastal roads, vista points, recreation areas, and beaches.*
>
> *2. Prohibit development which will significantly degrade the scenic qualities of major views and vista points.*
>
> *Alterations of Landforms*
> *4. Minimize visual destruction of natural landforms caused by the cutting, filling, and grading for building sites, access roads and public utilities by:*
>
> > *Concentrating development on level areas so that steeper hillsides are left undisturbed*
> >
> > *Prohibiting new development which requires grading, cutting, or filling that would significantly and permanently alter or destroy the appearance of natural landforms*
> >
> > *Restoring landforms as completely as possible after any permitted temporary alteration during construction, timber harvesting, or mineral extraction*
> >
> > *Constructing roads, buildings, and other structural improvements to fit the natural topography...*

In addition, the Sonoma County General Plan includes policies applicable to the Moscow Road Scenic Corridor and Russian River designated Riparian Corridor in the Coastal Zone:

> *OS-2e: Requires that new structures and cuts and fills in a Scenic Landscape Unit minimize visual impacts.*
>
> *OS-3c & 3.2: Maintenance or minor expansion of existing structures are permitted within a Scenic Corridor if compatible with the preservation of scenic values along designated scenic highway corridors.*

The proposed project will result in visual changes to the bridge and will affect views in and near the river corridor. These visual changes include ten new pilings adjacent to and slightly outside of the existing bridge footprint, additional armoring around existing bridge piers, and new riprap in two areas along the south riverbank. As discussed above, the applicant will also clear some areas of riparian vegetation, mostly willows, primarily under the north bank of the bridge to gain access to the work areas and under the south bank of the bridge to place riprap.

These changes will be most visible to people under the bridge or in the river channel area using the river for boating or fishing. Motorists and pedestrians on the bridge will see very little of the changes since they will be constructed primarily under or beside the existing bridge. The project does not include any permanent structural elements above the existing grade of the bridge. Motorists on Highway 116 may notice some changes to the bridge, but only from middle to long-distance views, and the changes will not be substantial. All viewers in the area may notice short-term visual impacts due to activity and equipment use during project construction.

Clearing areas of riparian vegetation will likely cause only temporary visual impacts, as the cleared areas are likely to revegetate naturally. **Special Condition 4** requires the permittee to monitor those areas to ensure the vegetation recovers, and to replant if it does not.

Because the new structures do not add appreciably to the visual appearance of the bridge and because most of them are located in areas where riparian vegetation will grow to cover them, the proposed project will not result in significant adverse impacts to coastal views. The short-term visual impacts will be somewhat greater than long-term, due to activity from construction equipment and due to the time lag for riparian vegetation to grow back. However, the Commission finds that, as conditioned, the proposed development will not significantly alter the appearance of the existing bridge and will not adversely affect views to and along the scenic coastal area where it is located.

Conclusion:

For the reasons above, the Commission finds that, as conditioned, the project is consistent with Section 30251 of the Coastal Act.

5.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the Commission's administrative regulations requires Commission approval of CDP applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of the CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. As discussed above, the proposed project has been conditioned to be found consistent with the policies of the Coastal Act. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. Mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity would have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act and to conform to CEQA.

APPENDIX A: Substantive File Documents

Biological and Water Quality Monitoring in the Russian River Estuary, Annual Reports 1996, 1997, 1998, 1999, 2000, Sonoma County Water Agency, June 12, 2001

Biological Opinion: Seismic Retrofit of Moscow Road Bridge over the Russian River in Sonoma County, California, National Marine Fisheries Service, July 23, 2001.

Fact Sheet – Green Sturgeon, California Department of Fish and Game, Habitat Conservation Planning Branch, Sacramento, CA.

Fact Sheet – River Lamprey, California Department of Fish and Game, Habitat Conservation Planning Branch, Sacramento, CA.

Fact Sheet – Russian River Tule Perch, California Department of Fish and Game, Habitat Conservation Planning Branch, Sacramento, CA.

Fact Sheet – Western Pond Turtle, California Department of Fish and Game, Habitat Conservation Planning Branch, Sacramento, CA.

Guidelines for Salmonid Passage at Stream Crossings, National Marine Fisheries Service, Southwest Region, September 2001.

Natural Environment Study Report, Moscow Road Bridge over the Russian River at Duncans Mills, Jones and Stokes, November 27, 2000.

Personal communications, DFG Biologist Bill Cox, November 2000.

Review of Potential Impacts to Fisheries Resources From Gravel Extraction in Humboldt County, California, Halligan, Dennis, Natural Resources Management Corporation, Eureka, CA., Jay 21, 1997.

Russian River Estuary Study 1992- 1993, prepared for the Sonoma County Department of Planning, and the Coastal Conservancy, by Peter Goodwin, Ph.D, P.E., and C. Kelly Cuffe (Phillip Williams and Associates, Ltd.), and Jennifer L Nielsen (USFS) and Theo Light.

Sonoma County Coastal Administrative Manual, June 1982

Sonoma County Coastal Plan, January 1981

Sonoma County Coastal Zoning Ordinance, March 1982

Swallows, from "Prevention and Control of Wildlife Damage Fact Sheet", by W. Paul Gorenzel, (U.C. Davis) and Terrell P. Salmon (U.C. Davis), for United States Department of Agriculture Cooperative Extension Division, Lincoln, Nebraska, 1994.

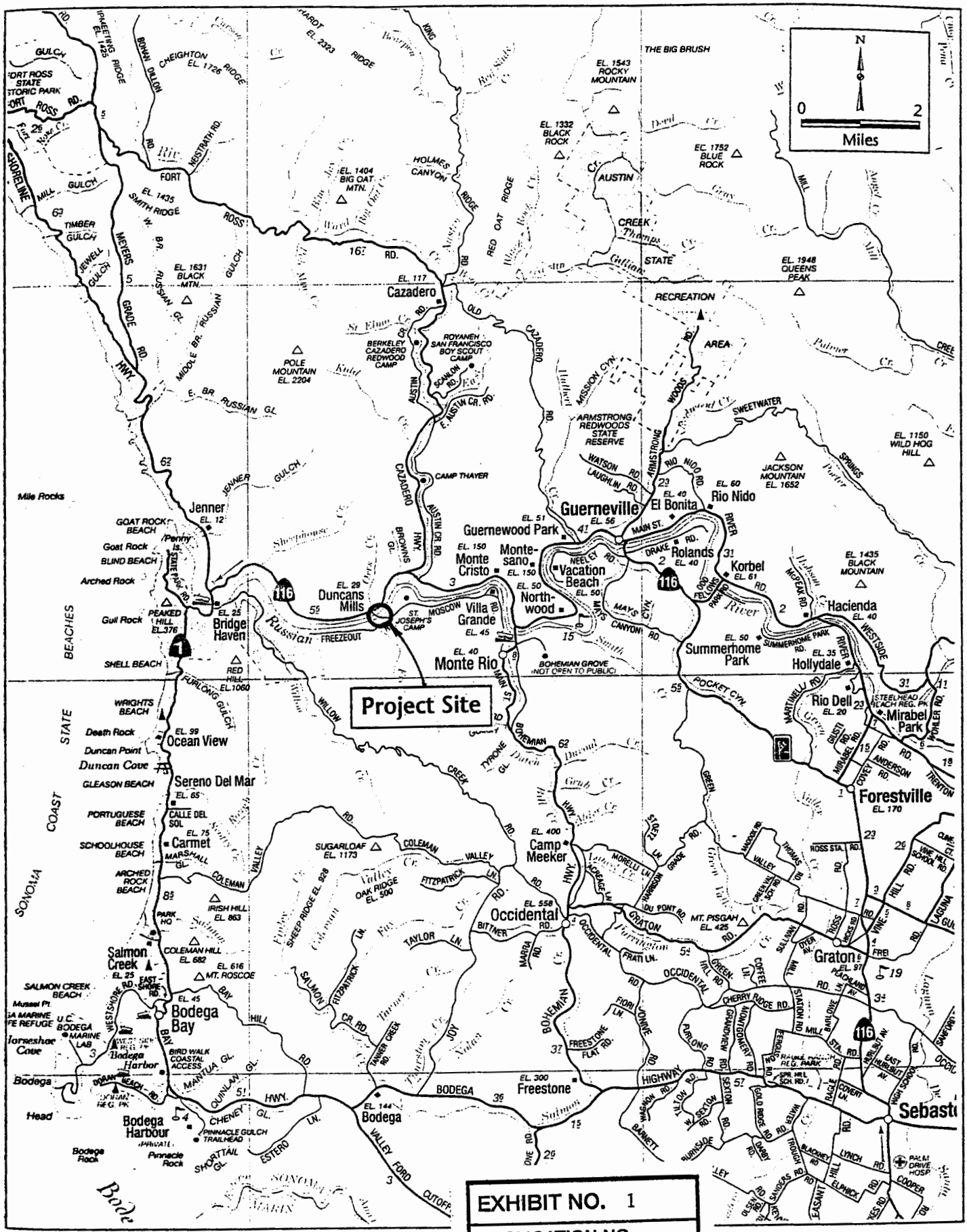


EXHIBIT NO. 1
APPLICATION NO.
2-01-014

Figure 1
Regional Location Map

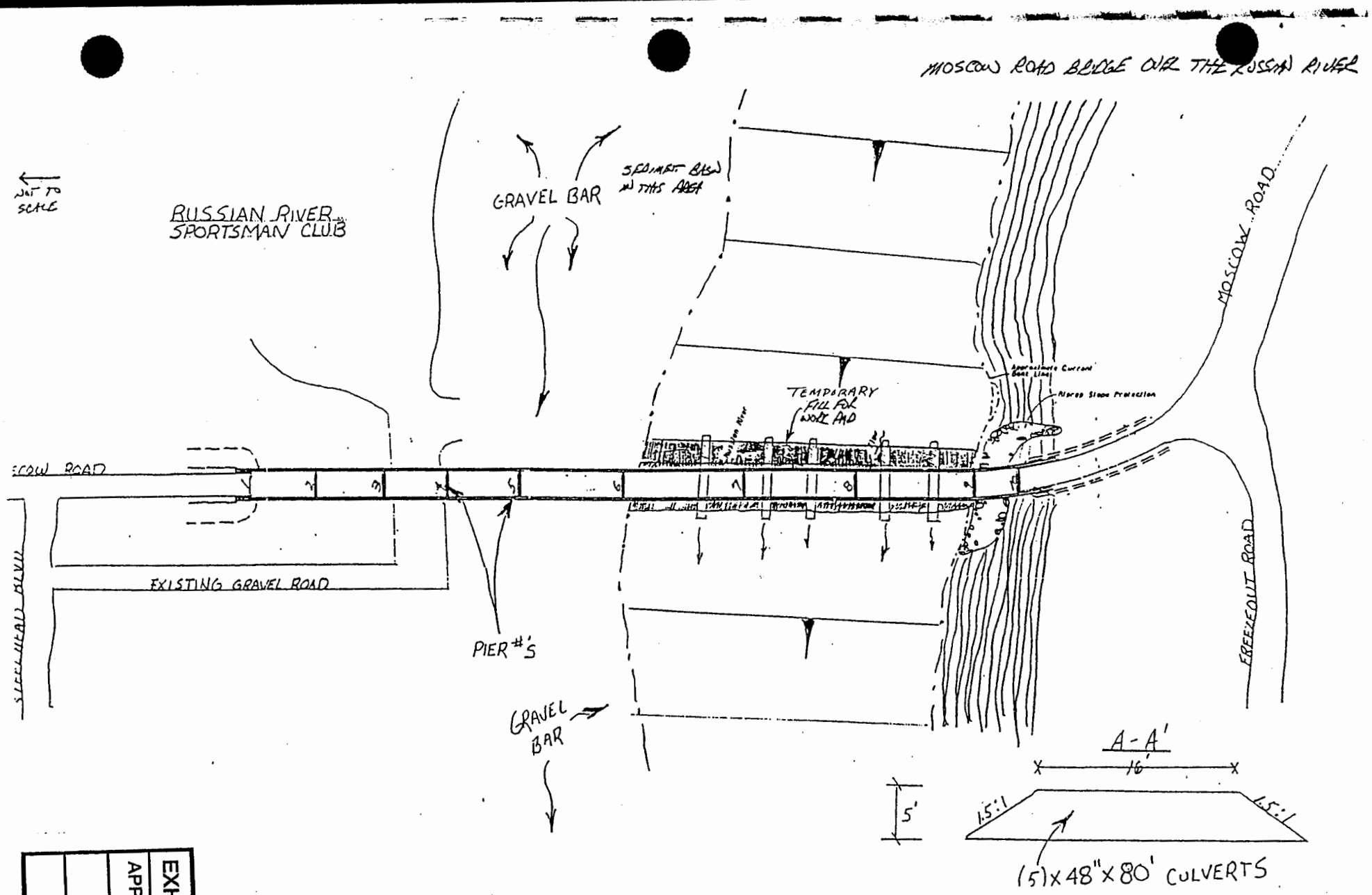


EXHIBIT NO. 2
APPLICATION NO. 2-01-014

Figure 4
Moscow Road Bridge — Proposed Construction Details

APPLICATION NO.

2-01-014

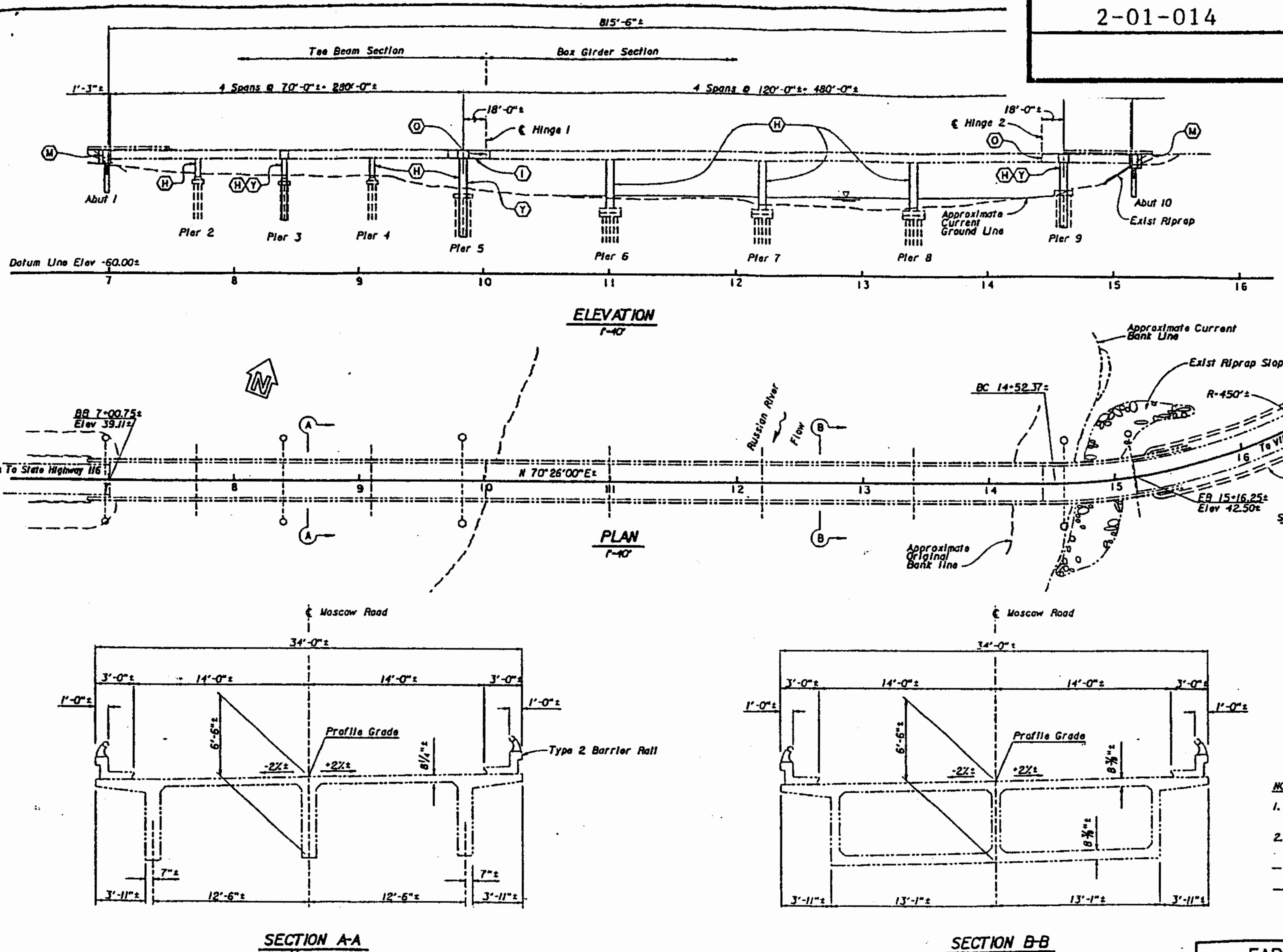


Figure 5
General Plan

IT	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
4	SON				

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

DASEN & ASSOCIATES, INC.
9912 Business Park Dr., Suite 130
Sacramento, California 95827

REGISTERED PROFESSIONAL ENGINEER — JUN MA — No. 49369 — Exp. 9/30/00 — CIVIL — STATE OF CALIFORNIA

RETROFIT LEGEND

- (H) Column Casing
- (I) Superstructure Retrofit
- (M) Abutment Retrofit
- (O) Hinge Retrofit
- (Y) Pier Retrofit

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN
2	FOUNDATION PLAN
3	CONCRETE STRENGTH AND TYPE LIMITS
4	ABUTMENT 1 & 10 LAYOUT
5	ABUTMENT RETROFIT DETAILS
6	PIER 3 RETROFIT DETAILS
7	PIER 5 AND HINGE 1 LAYOUT
8	PIER 5 AND EDGE GIRDER DETAILS NO. 1
9	PIER 5 AND EDGE GIRDER DETAILS NO. 2
10	PIER 9 AND HINGE 2 LAYOUT
11	PIER 9 DETAILS
12	HINGE BOLSTER AND PIPE RESTRAINER DETAILS
13	HINGE CABLE RETROFIT DETAILS NO. 1
14	HINGE CABLE RETROFIT DETAILS NO. 2
15	TYPE C-1 RESTRAINER DETAILS
16	COLUMN RETROFIT DETAILS
17	STEEL COLUMN CASINGS
18	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL
19	LOG OF TEST BORINGS
20	AS-BUILT LOG OF TEST BORINGS NO. 1
21	AS-BUILT LOG OF TEST BORINGS NO. 2

NOTES:

1. The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.
2. For General Notes and Legend, see "Foundation Plan" sheet.

- - - - - Indicates Existing Structure

——— Indicates New Structure

MOE AMINI DESIGN OVERSIGHT	DESIGN	BY Y. J. LIU	CHECKED J. MA	LOAD FACTOR DESIGN			PREPARED FOR SONOMA COUNTY	J. MA PROJECT ENGINEER
SIGN OFF DATE	DETAILS	BY J. LIVINGSTON	CHECKED Y. J. LIU	LAYOUT	BY Y. J. LIU	CHECKED J. MA		
	QUANTITIES	BY Y. J. LIU	CHECKED J. MA	SPECIFICATIONS	BY F. STEPHENSON	PLANS AND SPECS COMPARED J. MA		

12 AUG 98 11:16:06
FORM DC-OE-92-PF (REV. 3/88)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 04
EA L02209

EARTHQUAKE RETROFIT PROJECT
RUSSIAN RIVER BRIDGE (ON MOSCOW ROAD)
GENERAL PLAN

BRIDGE NO. 20C-016
POST MILE

DISREGARD PRINTS BEARING EARLIER REVISION DATES

SHEET 1 OF 21