

CALENDAR ITEM

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WP 7918.9

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N. Lee

GENERAL LEASE - PUBLIC AGENCY USE

APPLICANT:

Sonoma County Water Agency
404 Aviation Boulevard
Santa Rosa, CA 95403-9019

AREA, LAND TYPE, AND LOCATION:

Sovereign land in the Russian River and the Pacific Ocean, at Goat Rock State Beach, near the town of Jenner, Sonoma County.

AUTHORIZED USE:

Continued periodic breaching of the mouth of the Russian River to prevent flooding; and construction and maintenance of an outlet/pilot channel to form a freshwater lagoon for fish habitat enhancement and to prevent flooding in the Russian River.

LEASE TERM:

Beginning January 1, 2012; ending May 14, 2015.

CONSIDERATION:

The public use and benefit with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interest.

SPECIFIC LEASE PROVISIONS:

Prior to the start of breaching, Lessee will contact the California Department of Parks and Recreation lifeguards and post signs and barriers to remain for the duration of the breaching to minimize potential hazards to the public.

BACKGROUND:

On October 20, 2005, the Commission authorized a five-year General Lease – Public Agency Use with the Sonoma County Water Agency (SCWA) for continued year-round periodic breaching at the mouth of the Russian River

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(River) to create an outlet channel for flood control and habitat protection purposes. That lease expired on December 31, 2010.

Since the mid-1990s, SCWA has artificially breached the sandbar at the mouth of the Russian River when it closes and water levels in the estuary threaten low-lying properties. When the sandbar is breached, salt water from the ocean mingles with river water, creating saline conditions in the Russian River Estuary (Estuary), which stretches from the mouth of the River to the Duncan Mills area, upstream approximately seven miles. In 2008, the National Marine Fisheries Service (NMFS) issued the Russian River Biological Opinion, in response to Section 7 consultation by the U.S. Army Corps of Engineers (USACE) for operation of upstream dams. The Biological Opinion found that artificially elevated inflows to the Estuary due to upstream dam operations during the low flow season (May 15 through October 15) and historic artificial breaching practices have significant adverse effects on the River's estuarine rearing habitat for steelhead, coho salmon, and Chinook salmon. The Biological Opinion concluded that the combination of high inflows and breaching practices impact rearing habitat because they interfere with natural processes that cause a freshwater lagoon to form behind the sandbar that forms. As a result, proposed changes in estuary management, known as the Russian River Estuary Management Project (Project), are now required that would include a new method of opening the sandbar during the low flow season to create a more productive environment or new process for rearing Pacific salmonids. SCWA is now applying for a new General Lease – Public Agency Use to implement the Project, which includes the continuation of artificial breaching practices.

In its application, the SCWA requested a lease term that would meet the Biological Opinion's stipulations to implement the Project up through 2023. The Biological Opinion prescribes a program of potential, incremental steps to accomplish the Project, which involves an adaptive management approach. To date, the California Department of Parks and Recreation has issued a one-year permit that expires on December 31, 2012 as opposed to a 12-year permit that would expire in 2023. In addition, the California Department of Fish and Game has issued a three-year permit that expires on December 31, 2015. Considering the adaptive management approach and potential for project modifications, Commission staff recommends authorization of a lease providing for three periods of summer lagoon management and potential winter breaching through May 14, 2015. Staff believes this term would provide sufficient experience and information to determine the project's success and the ability to incorporate any modifications into a new lease.

Implementation of the Project would involve management of the Estuary as a summer lagoon during a lagoon management period of May 15 to October 15

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(the low flow season) and continuation of the current artificial breaching practices during the remainder of the year. SCWA plans to implement the proposed Project as soon as all required permits and authorizations have been issued.

Establishment of the summer lagoon will be similar to the current practice of artificial breaching in terms of equipment and construction duration. For the summer lagoon, a bulldozer and/or excavator will be used for grading to form a downward-sloping outlet channel. The excavated sand will be placed on the beach adjacent to the outlet channel and graded to depths of approximately one to two feet of the existing grade. After the outlet channel is constructed, the last upstream portion of the sandbar will be removed, allowing river water to flow to the ocean. The amount of sand graded will not exceed 2,000 cubic yards annually. Anticipated dimensions of the outlet channel are approximately 100 feet long by 30 feet wide, but actual dimensions are dependent on the size and topography of the sandbar. If a large sandbar naturally forms, the outlet channel could be as large as 400 feet long by 100 feet wide. This configuration would have a shallow depth and the total amount dredged would still not exceed 2,000 cubic yards annually.

With current breaching practices, the duration of freshwater lagoon conditions is typically five to 14 days. Establishment and maintenance of a summer lagoon would increase the duration of freshwater lagoon conditions to an estimated one-month to five-month duration. Historically, the occurrence of breaching activities varied year to year with the majority of breaching events occurring from September through November and April through June. The lowest number of breaching events occurred in 2004 with one event and the highest in 2009 with 13 events. For the proposed summer lagoon management, the mouth of the River may be opened up to 22 times per year depending on river flows, and beach and ocean conditions. The outlet channel will not be excavated as deeply, narrowly, or with as steep a gradient as the pilot channels currently implemented, which are designed to allow flow velocities to erode a wider and deeper channel that downcuts into the barrier beach and reopens the estuary to tidal action. Once an outlet channel is excavated, it may require maintenance up to one day per week. SCWA will perform maintenance, which will typically consist of minor grading with a bulldozer and/or excavator to maintain desired performance of the outlet channel.

The artificial breaching activities of any sandbar barrier in order to prevent flooding that primarily occurs outside of the low flow season (primarily occurring between October 16 and May 14) will typically be conducted in the same manner that it currently is. The breaching will occur on outgoing tides to maximize the elevation head difference between the estuary water surface and the ocean. A pilot channel in the barrier beach will be created at a sufficient depth to allow

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river flows to begin transporting sand to the ocean. After the pilot channel is dug, the last upstream portion of the sandbar will be removed, allowing river water to flow to the ocean. The size of the pilot channel varies depending on the height of the sandbar to be breached, the tide level, and the water surface elevation of the estuary. A typical channel is approximately 100 feet long, 25 feet wide, and six feet deep. The amount of sand moved ranges from less than 100 cubic yards to approximately 2,000 cubic yards annually.

OTHER PERTINENT INFORMATION:

1. Applicant has the right to use the uplands adjoining the lease premises.
2. An Environmental Impact Report (EIR), State Clearinghouse No. 2010052024, was prepared for this project by SCWA and certified on August 16, 2011. Commission staff has reviewed such document and Mitigation Monitoring Program prepared in conformance with the provisions of CEQA (Pub. Resources Code, § 21081.6) and adopted by the lead agency. The Final EIR is posted on the SCWA website at <http://www.scwa.ca.gov/estuary-eir/> (accessed January 10, 2012).
3. Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15091, 15096) are contained in Exhibit D, attached hereto.
4. A Statement of Overriding Considerations made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15093) is contained in Exhibit E, attached hereto.
5. The EIR for this project identified a number of significant and unavoidable impacts. The project may have impacts, both alone and cumulatively, with nearby projects, related to Hydrology and Flooding, Water Quality, Biological Resources, and Recreation. Commission staff has received letters from five organizations (the Russian River Watershed Protection Committee, the Sonoma Coast Chapter of Surfrider Foundation, the National Outer Continental Shelf Coalition, the Northern California River Watch, and the Russian Riverkeeper) and seven individuals outlining concerns with the Project's impacts, as well as SCWA's conformance with CEQA (Pub. Resources Code, § 21000 et seq.) and the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.). SCWA responded to comments related to its CEQA conformance in the Project's Final EIR and staff has reviewed these responses.

Nonetheless, some of the Project's significant impacts involve the Commission's Public Trust responsibilities toward the State's sovereign

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land in the Russian River and the Pacific Ocean. For example, the Project may reduce the quality of surfing at nearby Goat Rock State Beach during the lagoon management period; reduce availability of river-side beaches due to inundation from higher water levels; impair water quality within the lagoon due to slower outflow and subsequent buildup of nutrients and/or indicator bacteria; and create long-term disturbance for the nearby Jenner harbor seal haul-out. These and other potentially significant impacts, such as those associated with tsunamis, are discussed in more depth in Exhibit D (CEQA Findings of Fact).

Given uncertainties in the necessary frequency of outlet channel construction and exact environmental reactions to lagoon management, SCWA will be using an adaptive management approach. According to the project EIR, the adaptive management approach includes “monitoring of biological productivity, water quality, and physical processes in the Estuary in response to the changes in management actions”. The Project’s Adaptive Management Plan includes:

- “provisions for breaching in the event that adverse flooding conditions, water quality conditions, or biological resource conditions warrant, after consultation with the National Marine Fisheries Service and California Department of Fish and Game;” and
- consultation with NMFS should harbor seal counts indicate that the Project is affecting harbor seals’ use of the Jenner haul-out.

Still, in the face of current unknowns, these impacts remain significant.

However, as described in Exhibit E, while the Project may impact some Public Trust uses, it also provides Public Trust regional and statewide benefits through improvement of rearing habitat for state- and federally-threatened and endangered salmonid species. The project could also provide flood protection for nearby structures; and SCWA’s continued ability to provide water, sanitation services and flood protection in its district. NMFS, in a letter to Commission staff regarding consideration of the lease (see Exhibit F), confirmed that the Project is consistent with the Russian River Biological Opinion and stressed the significance of perched, freshwater lagoons in the life cycles of the protected salmonids in question.

A lease term allowing three periods of summer lagoon management, as recommended by staff, would provide for responsible adaptive management of the Estuary in a way that supports steelhead, coho salmon and Chinook salmon, but would also allow the Commission to

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reconsider the Project's impacts on Public Trust resources once additional monitoring data become available.

6. A lawsuit was filed by the Russian River Watershed Protection Committee (RRWPC) against the SCWA in the Superior Court for the County of Sonoma on September 14, 2011, alleging that the EIR is inadequate under CEQA and that the SCWA's decision approving the project should be set aside and certification of the EIR be vacated (Case SCV-250347). The RRWPC requested that the court issue a stay, but one has not been issued to date.

Under CEQA, when a lawsuit has been filed and no stay or injunction has been issued, a responsible agency "shall assume that the environmental impact report...for the project does comply" with CEQA "and shall approve or disapprove the project....Such approval shall constitute permission to proceed with the project at the applicant's risk pending final determination of such action or proceeding." (Pub. Resources Code, § 21167.3 subd. (b).) Thus, the Commission must assume that the EIR "fully meets the requirements of CEQA." (Cal. Code Regs., tit. 14, § 15233 subd. (b).)

7. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the project, as proposed, is consistent with its use classification.

APPROVALS OBTAINED:

County of Sonoma
California Department of Parks and Recreation
California Department of Fish and Game
National Marine Fisheries Service (NMFS)

FURTHER APPROVALS REQUIRED:

California Coastal Commission
North Coast Regional Water Quality Control Board
U.S. Army Corps of Engineers

EXHIBITS:

- A. Land Description
- B. Site and Location Map
- C. Mitigation Monitoring Program
- D. CEQA Findings of Fact

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- E. Statement of Overriding Considerations
- F. NMFS Letter to the Commission

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that an EIR, State Clearinghouse No. 2010052024, was prepared for this project by the Sonoma County Water Agency and certified on August 16, 2011 and that the Commission has reviewed and considered the information contained therein.

Adopt the Mitigation Monitoring Program, as contained in Exhibit C, attached hereto.

Adopt the Findings, made in conformance with California Code of Regulations, Title 14, sections 15091 and 15096, subdivision (h), as contained in Exhibit D, attached hereto.

Adopt the Statement of Overriding Considerations made in conformance with California Code of Regulations, Title 14, section 15093, as contained in Exhibit E, attached hereto.

SIGNIFICANT LANDS INVENTORY FINDING:

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

AUTHORIZATION:

Authorize issuance of a General Lease – Public Agency Use to Sonoma County Water Agency, beginning January 1, 2012 and expiring May 14, 2015, for the continued periodic breaching of the mouth of the Russian River to prevent flooding and construction and maintenance of an outlet/pilot channel to form a freshwater lagoon for fish habitat enhancement and to prevent flooding in the Russian River with the area described in Exhibit A and shown on Exhibit B (for reference purposes only) attached and by this reference made a part hereof; consideration to be the public use and benefit, with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interest.

EXHIBIT A

WP 7918

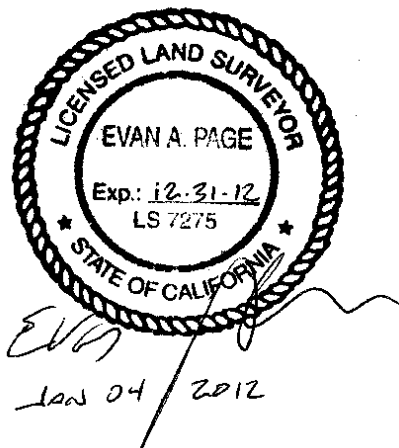
LAND DESCRIPTION

A parcel of tide and submerged lands lying partially in the bed of the Russian River and partially in the bed of the Pacific Ocean, adjacent to the Muniz Rancho, also being a portion of the Subdivision of the Rule Ranch as shown on the map filed in Book 11 of Maps at Page 14, records of Sonoma County, California, being more particularly described as follows:

BEGINNING at a point on the ordinary high water mark of the left (southerly) bank of the Russian River as shown on the Record of Survey filed in Book 111 of Maps at Page 10, records of Sonoma County, having a California Coordinate System (NAD 27, Zone 2) position of N = 287562.00', E = 1676667.00 (incorrectly shown as N = 287562.00', E = 1676000.00' on said Record of Survey), from which USC&GS station "Peaked Hill" lies S 24°08'32" E, 7818.70 feet, according to said Record of Survey; thence crossing the mouth of the Russian River N 32°57'21" W, 1056 feet, more or less, to the right (northerly) bank of the Russian River; thence southeasterly following said right (northerly) bank of the Russian River 1500 feet, more or less to a point which lies the following two (2) courses from the Point of Beginning: 1) S 67°54' E 530.64', and 2) N 22°49'35" E, 621 feet, more or less; thence leaving said right (northerly) bank and crossing said Russian River S 22°49'35" W, 621 feet, more or less to a point on the left (southerly) ordinary high water mark as shown on said Record of Survey, said ordinary high water mark lying approximately 30 feet northeasterly of and parallel to the remnants of an existing jetty, said jetty also being shown on said Record of Survey; thence northwesterly along said left (southerly) ordinary high water mark N 67°54' W (incorrectly shown as S 67°54' W on said Record of Survey), 530.64 feet to the POINT OF BEGINNING.

EXCEPTING THEREFROM any portions lying above the ordinary high water marks of the left and right banks of the Russian River and any portion along the coast of the Pacific Ocean lying above the ordinary high water mark of the Pacific Ocean.

END DESCRIPTION



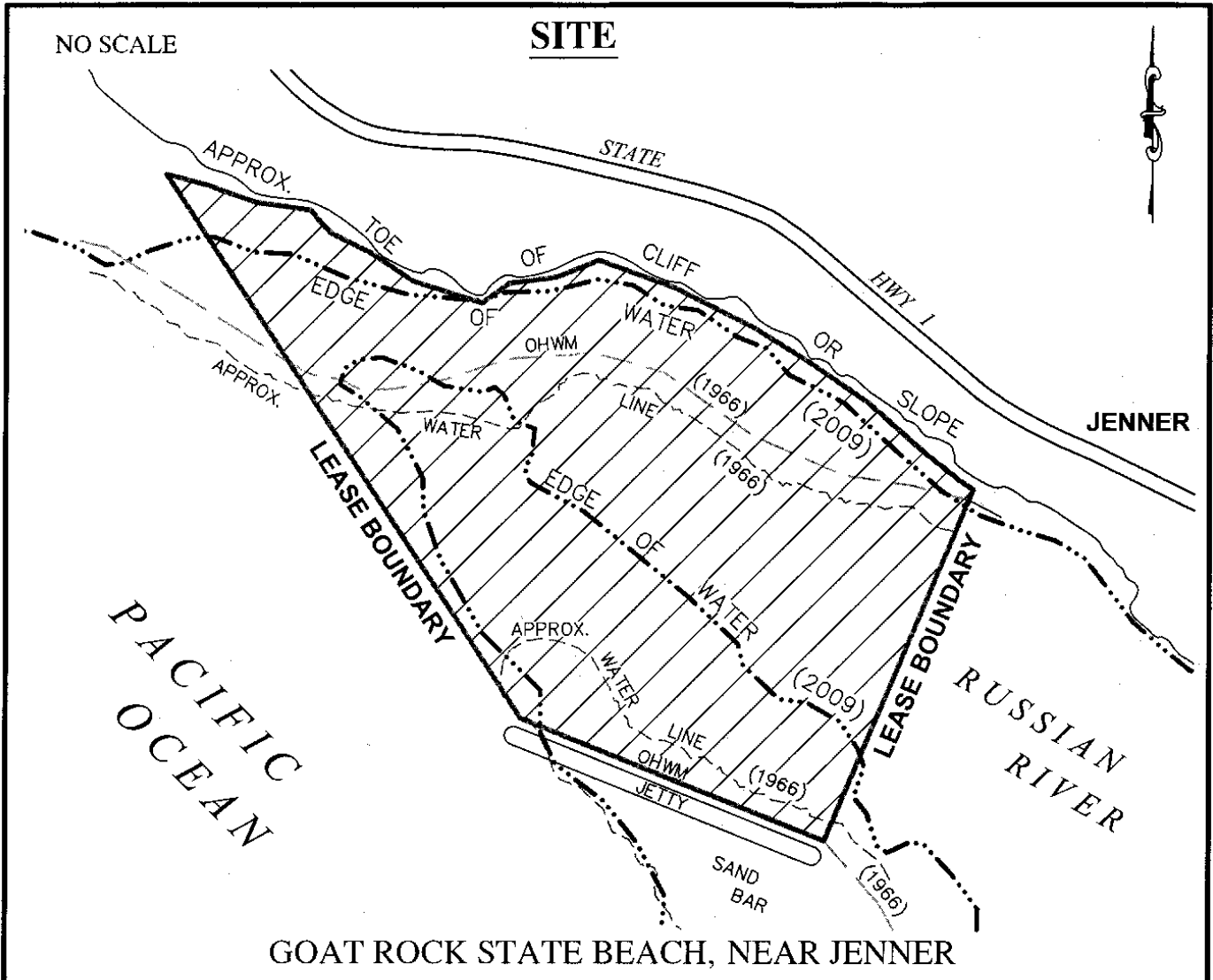


Exhibit B
 WP 7918
 SONOMA COUNTY
 WATER AGENCY
 GENERAL LEASE-
 PUBLIC AGENCY USE
 SONOMA COUNTY



This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

Mitigation Monitoring Plan

In compliance with Section 21081.6 of the California Environmental Quality Act (CEQA), the Sonoma County Water Agency (Water Agency) has prepared this Mitigation Monitoring Plan (MMP). All mitigation measures that are applicable to components of the Project described in the *Russian River Estuary Management Project Final Environmental Impact Report* have been included in the MMP. All mitigation measures are applicable to all components of the Project unless specified otherwise. Each mitigation measure and the method of monitoring or verifying the completion of the measure are described in the MMP. Upon approval of the MMP by the Water Agency's Board of Directors, each mitigation measure was entered onto one of the Water Agency's Mitigation Monitoring Report forms (MMR) and entered into the Water Agency's Environmental Resource Section's Mitigation Monitoring Database (Database). Before monitoring of a specific mitigation measure is required, the MMR will be forwarded by the Environmental Resource Section to the appropriate Water Agency department/staff for monitoring. A sample MMR is included at the end of this MMP. This sample MMR would be used to monitor a measure to mitigate potential impacts to cultural resources.

Various Water Agency departments/staff members are responsible for monitoring or verification of project mitigation measures and their general areas of responsibility are as follows:

The **Project Engineer** is responsible for project design and specifications.

The **Technical Writing Section** is responsible for preparation of project manual.

The **Construction Inspection Section** is responsible for enforcement of the provisions of the project specifications during the construction period.

The **Environmental Resource Section** is responsible for preparation of the MMP, for informing the various departments of their mitigation responsibilities, for distribution of the appropriate monitoring forms, and for maintenance of the Database which tracks the status of mitigation measures. In some cases, the Environmental Resource Section is responsible for implementing and monitoring various mitigation measures.

The **Right-of-Way Section** is responsible for coordinating with private property owners for acquisition of property or temporary and/or permanent easements; and for coordinating any issues concerning property rights with property owners.

The **Operations and Maintenance Division** is responsible for implementation of mitigation measures during the operation and maintenance phase of the project.

The Water Agency's **Board of Directors** approves and adopts the MMP and approves the project specifications.

Following is a description of the Project's mitigation measures and the required monitoring/verification. Mitigation measure numbers correspond to the numbers presented in the Final EIR. Each mitigation measure is followed by a checklist indicating which Water Agency sections or staff is responsible for monitoring or verification of mitigation measures.

HYDROLOGY AND FLOODING

The following measure would mitigate for Impact 4.2.2 as identified in the Final EIR.

Mitigation Measure 4.2.2: Concerning the 9 parcels and associated structures (i.e., boat docks or boat ramps on 7 of the parcels, and homes or other buildings on the other two parcels) identified above¹, and presented in more detail in a previous analysis (SCWA, 2010b), the Water Agency shall coordinate with NMFS² and work with the property owners to identify measures that would, if necessary, substantially minimize or avoid any damages to existing structures that would occur as a result of implementing the project (i.e., increased flooding durations at the 7 and 9 foot elevation). As appropriate, the Water Agency shall survey properties within the 9 foot elevation in greater detail to more accurately and precisely determine the elevation of the structures potentially at risk; this information shall be kept on record at the Water Agency and a copy shall be provided to each of the property owners.

<input checked="" type="checkbox"/> Project Engineer	<input type="checkbox"/> Technical Writing
<input type="checkbox"/> Construction Inspection	<input checked="" type="checkbox"/> Right-of-Way
<input checked="" type="checkbox"/> Environmental Resource	<input type="checkbox"/> Operations and Maintenance

The mitigation measure will be considered effective when Water Agency staff coordinates with NMFS and property owners to survey properties identified in the Draft EIR within the 9-foot water surface elevation and identifies measures that would, if necessary, substantially minimize or avoid any damages to existing structures that would occur as a result of implementing the project. Monitoring Mitigation will be complete when Water Agency staff has concluded coordination with NMFS and property owners and has provided copies of any necessary surveys to property owners.

BIOLOGICAL RESOURCES

The following measure would mitigate for Impact 4.4.1 as identified in the Final EIR.

Mitigation Measure 4.4.1a: The Water Agency shall conduct a pre-construction biological resources survey to identify special-status plants and butterflies (or larval host species) and nesting birds present within 150 feet of the general location of the outlet channel management area and access route. The pre-construction survey shall:

- Be conducted by a qualified biologist no more than 30 days prior to commencement of the lagoon management period (defined as from May 15 to October 15). The biologist shall have familiarity with special-status plants and butterflies (or larval host species) of the area and experience with conducting special-status species and nesting bird surveys.

¹ As described on page 4.2-19 of the Draft EIR, the following 9 parcels, listed by Assessor's Parcel Number (APN), are those identified as containing structures (i.e. buildings and boat docks) that could be inundated at Estuary water surface elevations between 7 and 9 feet: 099-080-008, 099-080-037, 099-120-009 (Visitor Center), 099-140-052, 099-140-055, 099-140-060, 099-140-063, 099-140-065, and 099-140-089.

² NMFS is the National Marine Fisheries Service.

- If no special-status plants or butterflies (or larval host species), or nesting birds are encountered, no further mitigation would be required for at least 30 days, unless additional measures are required by regulatory permit conditions obtained for the proposed project.
- Additional pre-construction surveys, specifically for nesting birds, shall be conducted such that no more than 30 days will have lapsed between the survey and outlet channel creation or maintenance activities.
- If a special-status plant or larval host species for special-status butterflies or nesting birds are encountered, the location shall be documented and species-specific avoidance and minimization measures shall be prepared by the qualified biologist in coordination with the Water Agency and appropriate resource agencies.
- The avoidance and minimization measures shall be implemented to prevent the loss of the species or abandonment of active nests, but shall also take the goal of the proposed project (i.e., managing the lagoon water surface elevations high enough to enhance salmon rearing habitat while also minimizing flooding of the low-lying properties) into consideration.

The following measure would mitigate for Impacts 4.4.1, 4.4.2, 4.4.3, and 4.4.4 as identified in the Final EIR.

Mitigation Measure 4.4.1b: A worker environmental awareness training shall be included to inform construction personnel of their responsibilities regarding sensitive biological resources that are present within 150 feet of the general location of the outlet channel management area and access route. The training shall comply with the following measures:

- The training shall be developed by a qualified biologist familiar with the sensitive biological resources that are known or have the potential to occur in the area.
- The training shall be completed by all construction personnel before any work occurs in the outlet channel management area, including construction equipment and vehicle mobilization. If new personnel are added to the proposed project, the Water Agency shall ensure that new personnel received training before they start working.
- The training shall provide educational information on the special-status species that are known or have potential to occur in the area, how to identify the species, as well as other sensitive biological resources (e.g., sensitive natural communities, federal and state jurisdictional waters). The training shall also review the required mitigation measures to avoid impacts on the sensitive resources, and penalties for noncompliance with biological mitigation requirements.

<input type="checkbox"/> Project Engineer	<input type="checkbox"/> Technical Writing
<input type="checkbox"/> Construction Inspection	<input type="checkbox"/> Right-of-Way
<input checked="" type="checkbox"/> Environmental Resource	<input checked="" type="checkbox"/> Operations and Maintenance

The mitigation measures 4.4.1a and 4.4.1b will be considered effective when the Water Agency's Standard Operating Procedures (SOP) for Russian River estuary management activities have been revised to include the above provisions, protection measures have been implemented and/or disturbance or

destruction of special-status plants and butterflies (or larval host species) and nesting birds has been avoided, and when each training has been completed. Monitoring will be ongoing throughout the duration of the project.

The following measure would mitigate for Impacts 4.4.8 and 4.4.10 as identified in the Final EIR.

Mitigation Measure 4.4.8: In compliance with the Incidental Harassment Authorization (NMFS, 2010c), the Water Agency will conduct seal counts at the Jenner haulout and at nearby coastal and river haulouts in accordance with methods described in the *Russian River Management Activities Pinniped Monitoring Plan* (Pinniped Monitoring Plan), dated September 9, 2009, or as updated by requirements of NMFS under the MMPA³. If monitoring during the lagoon management period indicates decreases in overall use at the Jenner haulout are correlated with increases in use at the three closest haulouts, the Water Agency shall consult with NMFS and CDFG⁴ to alter the Estuary Management Plan such that the haulout site is maintained as a resource. The IHA does not provide for long-term harassment or alteration of habitat conditions that would contribute to abandonment of the Jenner haulout.

<input type="checkbox"/> Project Engineer	<input type="checkbox"/> Technical Writing
<input type="checkbox"/> Construction Inspection	<input type="checkbox"/> Right-of-Way
<input checked="" type="checkbox"/> Environmental Resource	<input type="checkbox"/> Operations and Maintenance

The mitigation measure will be considered effective when seal counts have been completed as described above and consultation with NMFS and CDFG has been completed with the purpose of maintaining the Jenner haulout site as a resource. Monitoring will be ongoing throughout the duration of the project.

CULTURAL RESOURCES

The following measure would mitigate for Impact 4.8.1 as identified in the Final EIR.

Mitigation Measure 4.8.1: The Water Agency will implement the following measure:

Inadvertent Discovery of Historical and Unique Archaeological Resources. If discovery is made of items of historical or archaeological interest, the contractor or Water Agency staff shall immediately cease all work activities in the area (within approximately 100 feet) of discovery. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; deposits of metal, glass, and/or ceramic refuse, and shipwreck remains. After cessation of excavation the contractor shall immediately contact the Water Agency, State Parks, the U.S. Army Corps of Engineers, and the California State Lands Commission. The contractor shall not resume work until authorization is received from all agencies.

³ MMPA is the Marine Mammal Protection Act.

⁴ CDFG is the California Department of Fish and Game.

1. In the event of unanticipated discovery of archaeological materials occurs during construction, the Water Agency shall retain the services of a qualified professional archaeologist to evaluate the significance of the items prior to resuming any activities that could impact the site. A qualified maritime archaeologist shall be retained to examine shipwreck remains or related submerged artifacts if discovered near the river mouth during outlet channel creation or maintenance.
2. In the case of an unanticipated archaeological discovery, if it is determined that the find is potentially eligible for listing in the California and/or National Registers, and the site cannot be avoided, the Water Agency shall provide a research design and excavation plan, prepared by a qualified archaeologist, outlining recovery of the resource, analysis, and reporting of the find. The research design and excavation plan shall be approved by the Water Agency, State Parks, and U.S. Army Corps of Engineers. The California State Lands Commission shall provide approval of a research design for shipwreck remains or related submerged artifacts. Implementation of the research design and excavation plan shall be conducted prior to work being resumed. Upon project approval, the Water Agency will coordinate with State Parks and U.S. Army Corps of Engineers to develop an action plan that can be implemented in the event that flooding is imminent and breaching must occur immediately.

<input checked="" type="checkbox"/> Project Engineer	<input type="checkbox"/> Technical Writing
<input type="checkbox"/> Construction Inspection	<input type="checkbox"/> Right-of-Way
<input checked="" type="checkbox"/> Environmental Resource	<input checked="" type="checkbox"/> Operations and Maintenance

The mitigation measure will be considered effective when the Water Agency's Standard Operating Procedures (SOP) for Russian River estuary management activities have been revised to include the above provisions. Should the contractor or Water Agency staff identify a potential cultural resource, this measure would be considered effective if construction is halted at the site until an evaluation of the site's significance can be made and suggested mitigation is implemented. Monitoring will be ongoing throughout the duration of the project.

The following measure would mitigate for Impact 4.8.2 as identified in the Final EIR.

Mitigation Measure 4.8.2: The Water Agency will implement the following measures:

Discovery of Human Remains. If potential human remains are encountered, the contractor or Water Agency staff shall halt work in the vicinity of the find and contact the Sonoma County coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. The Water Agency will also notify by telephone the U.S. Army Corps of Engineers archaeologist and permit manager. If the coroner determines the remains are Native American, the coroner will contact the Native American Heritage Commission (NAHC). As provided in Public Resources Code Section 5097.98, the NAHC will identify the person or persons believed to be most likely descended from the deceased Native American. The Most Likely Descendent (MLD) makes recommendations for means of treating the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. Work shall cease in the immediate area until the recommendations of the appropriate MLD are concluded.

<input type="checkbox"/> Project Engineer	<input type="checkbox"/> Technical Writing
<input type="checkbox"/> Construction Inspection	<input type="checkbox"/> Right-of-Way
<input checked="" type="checkbox"/> Environmental Resource	<input checked="" type="checkbox"/> Operations and Maintenance

The mitigation measure will be considered effective when the Water Agency's Standard Operating Procedures (SOP) for Russian River estuary management activities have been revised to include the above provisions. Should the contractor or Water Agency staff identify potential human remains, this measure would be considered effective if construction is halted at the site until an evaluation of the site's significance can be made and suggested mitigation is implemented. Monitoring will be ongoing throughout the duration of the project.

NOISE

The following measure would mitigate for Impact 4.9.1 as identified in the Final EIR.

Mitigation Measure 4.9.1: Time of Day Limits and Notice to Residents. The Water Agency shall limit activities at the lagoon outlet channel that involve the use of heavy equipment to between local sunrise to local sunset.

<input checked="" type="checkbox"/> Project Engineer	<input type="checkbox"/> Technical Writing
<input type="checkbox"/> Construction Inspection	<input type="checkbox"/> Right-of-Way
<input checked="" type="checkbox"/> Environmental Resource	<input checked="" type="checkbox"/> Operations and Maintenance

The mitigation measure will be considered effective when the Water Agency's Standard Operating Procedures (SOP) for the Russian River estuary management activities have been revised to include the above provisions and when management activities that involve the use of heavy equipment are completed only between sunrise and sunset in compliance with the SOP. Monitoring will be ongoing throughout the duration of the project.

HAZARDS AND HAZARDOUS MATERIALS

The following measure would mitigate for Impact 4.12.2 as identified in the Final EIR.

Mitigation Measure 4.12-2: To minimize the potential for accidental spills from equipment and to provide for a planned response in the event that an accidental spill does occur, the Water Agency shall implement the following construction best management practices:

1. Prohibit on-site fueling of vehicles and construction equipment;
2. Maintain spill containment and clean up equipment onsite; and,
3. Ensure that construction personnel are trained in proper material handling, cleanup, and disposal procedures.

- | | |
|---|---|
| <input checked="" type="checkbox"/> Project Engineer | <input type="checkbox"/> Technical Writing |
| <input type="checkbox"/> Construction Inspection | <input type="checkbox"/> Right-of-Way |
| <input checked="" type="checkbox"/> Environmental Resource | <input checked="" type="checkbox"/> Operations and Maintenance |

The mitigation measure will be considered effective when the Water Agency’s Standard Operating Procedures (SOP) for Russian River estuary management activities have been revised to include the above provisions and the above best management practices have been implemented in compliance with the SOP. Monitoring will be ongoing throughout the duration of the project.

PUBLIC SERVICES AND UTILITIES AND PUBLIC SAFETY

The following measure would mitigate for Impact 4.13.3 as identified in the Final EIR.

Mitigation Measure 4.13.3: Following outlet channel creation or artificial breaching, the Water Agency will install semi-permanent signage notifying beach users of channel conditions, potential for safety hazards from beach erosion or hydrologic action, and emergency contact information. Signage should be posted and maintained at key locations, such as the parking lot at Goat Rock State Beach Parking lot, the unofficial beach access trail located on the north side of the beach off Highway 1, and 100 feet on either side of the outlet channel.

- | | |
|---|---|
| <input checked="" type="checkbox"/> Project Engineer | <input type="checkbox"/> Technical Writing |
| <input type="checkbox"/> Construction Inspection | <input type="checkbox"/> Right-of-Way |
| <input checked="" type="checkbox"/> Environmental Resource | <input checked="" type="checkbox"/> Operations and Maintenance |

The mitigation measure will be considered effective when the Water Agency’s Standard Operating Procedures (SOP) for Russian River estuary management activities have been revised to include the above provisions and when signage has been installed in compliance with the SOP. Monitoring will be ongoing throughout the duration of the Project.

CUMULATIVE

The following measure would mitigate for Impacts 5.1 and 5.2.1 as identified in the Final EIR.

Mitigation Measure 5.1: Short-term (Construction-related) Cumulative Impacts. Mitigation Measures in Chapter 4.0, Environmental Setting, Impacts, and Mitigation Measures.

Project Engineer **Technical Writing**
 Construction Inspection **Right-of-Way**
 Environmental Resource **Operations and Maintenance**

The mitigation measure will be considered effective when the Mitigation Measures 4.2.2, 4.4.1a, 4.4.1b, 4.4.8, 4.8.1, 4.8.2, 4.9.1, 4.12.2, and 4.13.3 have been successfully implemented as specified in the sections above. Monitoring will be ongoing throughout the duration of the Project.

The following measure would mitigate for Impacts 5.2.4 as identified in the Final EIR.

Mitigation Measure 5.2-4: The Water Agency shall monitor occurrence of sea level rise and implement adaptive management strategies to manipulate outlet channel elevation, alignment, and width; or implement more frequent outlet channel maintenance.

Project Engineer **Technical Writing**
 Construction Inspection **Right-of-Way**
 Environmental Resource **Operations and Maintenance**

The mitigation measure will be considered effective when the Water Agency implements adaptive management strategies in response to observed sea level rise. Monitoring will be ongoing throughout the duration of the Project.

The following measure would mitigate for Impacts 5.2.7 as identified in the Final EIR.

Mitigation Measure 5.2.7: Mitigation Measures in Section 4.4, Biological Resources.

Project Engineer **Technical Writing**
 Construction Inspection **Right-of-Way**
 Environmental Resource **Operations and Maintenance**

The mitigation measure will be considered effective when Mitigation Measures 4.4.1a, 4.4.1b, and 4.4.8 have been successfully implemented as specified in the sections above. Monitoring will be ongoing throughout the duration of the Project.

The following measure would mitigate for Impacts 5.2.12 as identified in the Final EIR.

Mitigation Measure 5.2.12: Mitigation Measures in Section 4.9, Noise.

Project Engineer **Technical Writing**
 Construction Inspection **Right-of-Way**
 Environmental Resource **Operations and Maintenance**

The mitigation measure will be considered effective when Mitigation Measure 4.9.1 has been successfully implemented as specified in the sections above. Monitoring will be ongoing throughout the duration of the Project.

SCWA MITIGATION MONITORING REPORT

Project Name: Russian River Estuary Management Project

Report No.: _____ Project Type: Water Supply Flood Control Sanitation Other

Inspection/Verification Date: _____

Inspection/Verification Performed By: _____

(print name and initial)

(division/department): Environmental Resources

Report Prepared By: _____

Impact Type: PUBLIC SERVICES AND UTILITIES AND PUBLIC SAFETY

Mitigation Measure: The Environmental Resources Section will verify that the Standard Operating Procedures (SOP) for Russian River estuary management activities provide that, following outlet channel creation or artificial breaching, the Water Agency will install semi-permanent signage notifying beach users of channel conditions, potential for safety hazards from beach erosion or hydrologic action, and emergency contact information. Signage would be posted and maintained at key locations, such as the parking lot at Goat Rock State Beach parking lot, the unofficial beach access trail located on the north side of the beach off Highway 1, and 100 feet on either side of the outlet channel.

Mitigation Measure Status: _____

Exceptions From Mitigation Measure Described Above: _____

Remaining Work Needed to Complete Mitigation Measure: _____

Estimated Date for completion of Mitigation: _____, 20

Mitigation Monitoring Report due date: _____, 20

To be filled out by the Environmental Resource Section:

Date sent to division/department: _____, 20

Date returned to ECS: _____, 20

Date entered in MMP database & project binder: _____, 20

Entered into ECS Database by: _____

Date next Mitigation Report is required: N/A, 20

EXHIBIT D – RUSSIAN RIVER ESTUARY MANAGEMENT PROJECT

STATEMENT OF FINDINGS

INTRODUCTION

The California State Lands Commission (CSLC), acting as a responsible agency under the California Environmental Quality Act (CEQA), makes these findings to comply with CEQA as part of its discretionary approval to authorize issuance of a dredging lease to the Sonoma County Water Agency (SCWA) for use of sovereign lands associated with the proposed Russian River Estuary Management Project (Project). (See generally Pub. Resources Code, § 21069; State CEQA Guidelines, § 15381.)¹ The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

The CSLC is a responsible agency under CEQA for the Project because the CSLC must approve a lease for the Project to go forward and because SCWA, as the CEQA lead agency, has the principal responsibility for approving the Project and has completed its environmental review under CEQA. The SCWA analyzed the environmental impacts associated with implementation of the Project in an Environmental Impact Report (EIR) (State Clearinghouse [SCH] No. 2010052024) and, in August, 2011, certified the EIR and adopted the Project Mitigation Monitoring and Reporting Program (MMRP), Findings, and Statement of Overriding Considerations.

The proposed Project is an effort to balance flood protection and juvenile salmonid rearing habitat. It would involve construction and maintenance of a seasonal outlet channel at the mouth of the Russian River to create and maintain a freshwater lagoon through May and October, annually. Due to various weather and tidal influences, a sandbar periodically forms at the mouth of the Russian River, near the town of Jenner, creating a backlog of river effluent in the Russian River Estuary (Estuary) upstream of the mouth of the river and a flood hazard for nearby structures. The SCWA has traditionally responded to these events by breaching the sandbar with heavy equipment; however, when the sandbar is breached, salt water from the ocean mingles with fresh river water, creating saline conditions in the Estuary.

On September 24, 2008, in response to Section 7 consultation by the U.S. Army Corps of Engineers (USACE) for operation of upstream dams, the National Marine Fisheries Service (NMFS) issued the Russian River Biological Opinion (BO) (Exhibit F). The BO found that artificially-elevated inflows to the Estuary due to upstream dam operations

¹ CEQA is codified in Public Resources Code section 21000 et seq. The State CEQA Guidelines are found in Title 14 of the California Code of Regulations section 15000 et seq.

during the low flow season (May 15 through October 15) and the historic breaching practices have significant adverse effects on the Russian River's estuarine rearing habitat for steelhead, coho salmon, and Chinook salmon. The BO concluded that the combination of high inflows and breaching practices impact rearing habitat because they interfere with natural processes that create a freshwater lagoon behind the sandbar that intermittently forms.

The BO also found that the summer minimum instream flows in the upper Russian River and Dry Creek required by the State Water Resources Control Board are too high for optimal juvenile salmonid habitat within the river. The SCWA is proposing a separate Fish Habitat Flows and Water Rights Project (Fish Flow Project)² to address the high flow upstream of the Estuary, and is currently preparing a separate EIR to analyze the potential significant impacts associated with the Fish Flow Project.

The Project under consideration:

- describes SCWA's response to the natural, intermittent formation of the sandbar at the mouth of the river, independent of upstream flow;
- is temporally separate from the Fish Flow Project (management of the lagoon to begin May of this year); and
- is designed to achieve Project goals—creation and maintenance of a freshwater lagoon for salmonid-rearing habitat within the Estuary—regardless of implementation of the Fish Flow Project.

As part of the Project, SCWA would use a bulldozer and/or excavator to create a downward-sloping outlet channel in the sandbar whenever it forms between May and October to create a freshwater lagoon appropriate for juvenile salmon rearing. The Project was specified as a "reasonable and prudent alternative" by the NMFS in its BO, and implementation of the Project by SCWA is necessary in order for SCWA to retain the authorization provided by the BO to engage in the "incidental take" of listed salmonid species under the federal and State Endangered Species Acts. The Project is the only alternative identified in the Final EIR that will allow SCWA to meet the requirements of the BO and retain its "incidental take" authority.

Because the proposed activities occur on State sovereign land, SCWA will require a lease from the CSLC. The SCWA's previous lease, permitting the former breaching activities, expired on December 31, 2010. In December, 2010, SCWA submitted an application for a new lease that would permit the proposed Project.

The SCWA determined that the Project could have significant environmental effects on the following environmental resources:

² The Fish Flow Project is a separate project proposed by SCWA, also in response to the BO, and currently under review pursuant to CEQA. The proposed project involves lowering the minimum instream flow requirements in the Russian River, managed by upstream water releases, to support threatened and endangered salmonid species. More information on the Fish Flow Project can be found on SCWA's website at <http://www.scwa.ca.gov/fish-flow/> (Accessed 1/12/2012).

- Hydrology and Flooding
- Water Quality
- Biological Resources
- Recreation
- Cultural Resources
- Noise
- Hazards and Hazardous Materials
- Public Services and Utilities and Public Safety
- Cumulative

In certifying the EIR and approving the Project, SCWA imposed various mitigation measures for Project-related significant effects on the environment as conditions of Project approval; however, the EIR concluded that, even after integration of feasible mitigation, some of the identified impacts would remain significant. As a result, SCWA also adopted a Statement of Overriding Considerations, which justified SCWA's approval of the Project despite these significant and unavoidable impacts. The EIR determined that, after mitigation, the Project may still have significant impacts on the following resource areas:

- Hydrology and Flooding
- Water Quality
- Biological Resources
- Recreation
- Cumulative

The SCWA also determined that the Project would not have significant environmental effects on the following environmental resource areas, and thus did not impose mitigation measures as CEQA does not require mitigation for impacts that are less than significant:

- Geology and Soils
- Fisheries
- Land Use and Agriculture
- Air Quality
- Traffic
- Public Services and Utilities and Public Safety
- Aesthetics

As a responsible agency, the CSLC complies with CEQA by considering the lead agency's EIR and reaching its own conclusions on whether, how, and with what conditions to approve a project. In so doing, the CSLC may require changes in a project to lessen or avoid the effects, either direct or indirect, of that part of the project which the CSLC will be called on to carry out or approve. In order to ensure the identified mitigation measures and/or project revisions are implemented, the CSLC adopts the MMRP as set forth in Exhibit C as part of its Project approval.

FINDINGS

The CSLC's role as a responsible agency affects the scope of, but not the obligation to adopt, findings required by CEQA. Findings are required under CEQA by each public agency that approves a project for which an EIR has been certified that identifies one or more significant impacts on the environment (Pub. Resources Code, § 21081, subd. (a); State CEQA Guidelines, § 15091, subd. (a)). Because the EIR certified by SCWA for the Project identifies potentially significant impacts that fall within the scope of the CSLC's approval, the CSLC makes the Findings set forth below as a responsible

agency under CEQA. (CEQA Guidelines, § 15096, subd. (h); *Resource Defense Fund v. Local Agency Formation Comm. of Santa Cruz County* (1987) 191 Cal.App.3d 886, 896-898.)

While the CSLC must consider the environmental impacts of the Project as set forth in SCWA's EIR, the CSLC's obligation to mitigate or avoid the direct or indirect environmental impacts of the Project is limited to those parts which it decides to carry out, finance, or approve (Pub. Resources Code, § 21002.1, subd. (d); CEQA Guidelines, §§ 15041, subd. (b), 15096, subds. (f)-(g)). Accordingly, because the CSLC's exercise of discretion involves only the issuance of a dredging lease for the Project, the CSLC is responsible for considering only the environmental impacts related to lands or resources subject to the CSLC's jurisdiction. With respect to all other impacts associated with implementation of the Project, the CSLC is bound by the legal presumption that the EIR fully complies with CEQA. This presumption is not affected by the fact that a lawsuit was filed by the Russian River Watershed Protection Committee (RRWPC) against SCWA in the Superior Court for the County of Sonoma on September 14, 2011, alleging that the EIR is inadequate under CEQA and that SCWA's decision approving the project should be set aside and certification of the EIR be vacated (Case SCV-250347). The RRWPC requested that the court issue a stay of the effectiveness of the EIR, but no stay has been issued to date.

Under CEQA, when a lawsuit has been filed and no stay or injunction has been issued, a responsible agency "shall assume that the environmental impact report...for the project does comply" with CEQA "and shall approve or disapprove the project....Such approval shall constitute permission to proceed with the project at the applicant's risk pending final determination of such action or proceeding." (Pub. Resources Code, § 21167.3 subd. (b).) Therefore, the Commission must assume that the EIR "fully meets the requirements of CEQA." (Cal. Code Regs., tit. 14, § 15233 subd. (b).)

The CSLC has reviewed and considered the information contained in SCWA's EIR. All significant adverse impacts of the Project identified in the EIR relating to the CSLC's approval of a General Lease – Public Agency Use, which would authorize SCWA's Project activities on State sovereign land in the Pacific Ocean and the Russian River, are included herein and organized according to the resource affected. These Findings, which reflect the independent judgment of the CSLC, are intended to comply with CEQA's mandate that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects unless the agency makes written findings for each of those significant effects. The possible findings on each significant effect are:

- (1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment;
- (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency;
- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained

workers, make infeasible the mitigation measures or alternatives identified in the EIR.³

Whenever Finding (3) is made, the CSLC has determined that sufficient mitigation is not practicable to reduce the impact to a less than significant level, and even after implementation of all feasible mitigation measures, there will be or could be an unavoidable significant adverse impact due to the Project. Significant impacts requiring Finding (3) were identified in the Final EIR. The Statement of Overriding Considerations, Exhibit E, applies to all such unavoidable impacts.

These Findings are based on the information contained in the EIR, as well as information provided to CSLC staff by the NMFS and the Applicant, all of which is contained in the administrative record. The mitigation measures are briefly described in these Findings; more detail on the mitigation measures is included in SCWA's EIR.

The CSLC is the custodian of the record of proceedings upon which its decision is based. The location of the CSLC's record of proceedings is in the Sacramento office of the CSLC, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

I. IMPACTS REDUCED TO LESS THAN SIGNIFICANT LEVELS WITH MITIGATION

The following impacts were determined in the EIR to be potentially significant absent mitigation: 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.10, 4.8.1, 4.8.2, 4.9.1, 4.12.2, 4.13.3, 5.1, and 5.2.12. After application of mitigation, however, the impacts were determined to be less than significant.

A. BIOLOGICAL RESOURCES

CEQA FINDING NO. 4.4.1

Impact: **4.4.1. Short-term impacts to special-status plant and animal species.**
The creation and maintenance of the lagoon outlet channel could adversely affect special-status plant and animal species.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Because of the lack of potentially suitable habitat within the Estuary, as well as the distances from known occurrences, no impacts on the following eight special-status animal species are anticipated during creation and maintenance of the outlet channel: California freshwater shrimp; foothill yellow-legged frog; California red-legged frog;

³ See Public Resources Code section 21081, subdivision (a) and State CEQA Guidelines section 15091, subdivision (a).

western pond turtle; pallid bat; Sonoma tree vole; Townsend's big-eared bat; western red-bat; and American badger. Impacts on the remaining special-status plant and animal species with a moderate to high potential to occur in the Estuary Study Area are discussed below.

Plants, Butterflies, and Birds

Habitats within the outlet channel management area and access route are not expected to support special-status plant or butterfly species, or nesting birds, given the geologic and physical structure and existing level of disturbance of the habitats, as well as lack of observations of these species during ongoing monitoring efforts. However, adjacent habitats, particularly those bordering the access route near the parking lot at Goat Rock State Beach, may support such species. For example, a population of Tidestrom's lupine is known to occur north and east of the parking lot, and a historical occurrence of Myrtle's silverspot butterfly is known from along a State Park road near Goat Rock. There is high potential for such species, and other special-status plants (Blasdale's blade grass, coastal bluff morning glory, swamp harebell, blue coast gilia, short-leaved evax, perennial goldfields), butterflies (Behren's silverspot butterfly), and nesting birds (great blue heron, northern harrier, American peregrine falcon, Osprey, California brown pelican, double crested cormorant), to be affected by the creation and maintenance of the outlet channel through direct loss of individuals or habitat loss or modification. Such impacts would be potentially significant.

However, construction vehicles and equipment will avoid vegetated portions of the beach and dune habitats during ingress and egress, using the access point and barrier beach driving route that is currently used by lifeguarding trucks and other State Park vehicles. This includes activities conducted in cooperation with biological monitoring and compliance with all regulatory permits obtained for the Project. The effects of these practices in addition to implementation of **Mitigation Measures 4.4.1a and 4.4.1b** would reduce potentially significant impacts on special-status plant and butterfly species, and nesting birds potentially occurring within adjacent habitats. Implementation of these measures would reduce potential impacts to less than significant.

The areas adjacent to the outlet channel management area and access route support suitable roosting and foraging habitat for special-status bird species including various song birds, birds of prey, wading birds, shorebirds, seabirds, and water birds. If such species are roosting or foraging within habitat in or near the outlet channel management area or access route during the creation and maintenance of the outlet channel, increased noise and vibrations from construction vehicles, equipment, and personnel could cause minor alteration in these birds' behavior. Roosting or foraging birds may be flushed due to the human-related disturbances, or may avoid suitable habitats in or near the outlet channel management area and access route due to such disturbances. Although flushing may increase the birds' energy demands, it is not expected to result in a substantial adverse effect on any special-status birds potentially present. The CEQA baseline for the Project includes frequent human-related disturbances within the outlet channel management area and access route. This includes (but is not limited to) disturbances associated with artificial breaching events and recreation activities.

Additionally, human-related disturbances associated with the Project would be temporary and suitable roosting and foraging habitat is present throughout the Estuary and along the northern California coast. For these reasons, impacts on roosting and foraging birds would be less than significant.

Marine Mammals

Harbor seals regularly haulout at the mouth of the Russian River (referred to as the Jenner haulout), and California sea lions and northern elephant seals are occasional visitors. Haulout sites are also present within the Estuary at various logs and rock piles. When seals and sea lions (collectively referred to as pinnipeds) haulout, especially pups, they are vulnerable to human disturbance. Creation and maintenance of the outlet channel would disturb pinnipeds occupying beach haulout sites by the presence of construction vehicles, equipment, and personnel, and associated noise. Pinniped response to such disturbance typically includes alerts (lifting heads towards source of disturbance), moving to a different location on the beach, or flushing into the water, although it is not unusual for pinnipeds to remain on or near the haulout during breaching events. Additionally, pinnipeds occupying beach haulout sites, as well as river haulout sites, could be disturbed during monitoring efforts associated with Estuary management by the presence of boats and other equipment and monitoring personnel. Such human-related disturbance would disrupt pinniped behavioral patterns and, therefore, would be a potentially significant impact.

NMFS issued an Incidental Harassment Authorization (IHA) for the Project on March 30, 2010. The IHA includes a number of conditions to avoid and minimize impacts on pinnipeds at the Jenner haulout. Per IHA requirements, SCWA has incorporated the following conditions into the Project:

- Pupping Season (March 15- June 30): The following conditions apply only during the pupping season:
 1. If a pup less than one week old is on the beach where heavy machinery will be used or on the path used to access the work location, the breaching event will be delayed until the pup has left the site or the latest day possible to prevent flooding while still maintaining suitable fish rearing habitat. Pups less than one week old will be characterized by being up to 15 kilogram, thin for their body length, or an umbilicus or natal pelage is present. The SCWA will coordinate with the locally established seal monitoring program to determine if pups less than one week old are on the beach, prior to a breaching event.
 2. A water level management event will not occur for more than two consecutive days unless flooding threats cannot be controlled.
 3. The SCWA will maintain a one week (7 day) "no work" period between water level management events (unless flooding is a threat to the low-lying residential community) to allow for adequate disturbance recovery period. During the "no-work" period, equipment will be removed from the beach.

4. If crew or marine mammal observers sight any pup which may be abandoned, SCWA will contact NMFS stranding response network [the Marine Mammal Center, 415-289-7350] immediately and report the incident to NMFS' Southwest Regional Office and NMFS Headquarters within 48 hours. Observers will not approach or move the pup.
 5. Physical and biological monitoring will not be conducted if a pup less than one week old is present at the monitoring site or on a path to the site.
- Year-Round: The following conditions apply year-round:
 1. SCWA crew will slowly and cautiously approach the haulout ahead of heavy equipment to minimize the potential for flushes to result in a stampede.
 2. SCWA staff will avoid walking or driving equipment through the seal haulout.
 3. Crews on foot will take caution to approach the haulout slowly and to make an effort to be seen by the seals from a distance, if possible, rather than appearing suddenly at the top of the sandbar.
 4. Equipment will be driven slowly on the beach and care will be taken to minimize the number of equipment shut-downs and start-ups.
 5. The SCWA will contact NMFS' Southwest Regional Office, Santa Rosa Office, and Headquarters to inform them of the potential flooding threat and event schedule.
 6. Physical and biological monitoring will be conducted in a manner which results in the least amount of pinniped harassment practical. The SCWA personnel will approach the haulout slowly and cautiously and only when necessary to carry out monitoring.
 - In addition to the conditions above, the Project will incorporate the following monitoring measures contained in the IHA:
 1. Pinnipeds will be monitored from the overlook on the bluff along Highway 1 adjacent to the haulout with high powered spotting scopes. The method and disturbance behavior will be recorded following Mortenson (2006); disturbances would be recorded on a three-point scale that represents an increasing seal response to the disturbance (alertness, movement, or flight). The time, source, and duration of the disturbance, as well as an estimated distance between the source and haulout, would be recorded.
 2. During the pupping season (March 15- June 30), SCWA will conduct a pre-lagoon outlet channel survey one to three days prior to an event to determine the number of animals on the beach and if any pups are present.
 3. The day of an event, SCWA will begin pinniped monitoring at least one hour prior to crew and equipment accessing the beach.
 4. Monitoring will continue for the duration of an event to determine how many animals have been taken and end no sooner than one hour after equipment leaves the beach.

5. In addition to event days, seal counts will also be conducted in accordance with SCWA's most current Russian River Estuary Management Activities Pinniped Monitoring Plan.

The effect of these conditions, along with the **Mitigation Measures 4.4.1a and 4.4.1b** listed below, would reduce impacts on pinnipeds associated with the creation and maintenance of the outlet channel to less than significant. This conclusion is supported by the observations of SCWA staff that, during over five years of monitoring (1996 to 2000), once the breaching event was completed and construction vehicles, equipment and personnel left the beach, pinnipeds returned to the haulout within a day. Additionally, SCWA will renew the IHA annually, unless otherwise required by the NMFS. The conditions and monitoring measures included in the renewed IHA would supersede and replace those incorporated above.

Combined with the above protective measures included as part of the Project description, the following mitigation measures will be implemented to reduce the impact to less than significant:

- **Mitigation Measure 4.4.1a.** The SCWA shall conduct a pre-construction biological resources survey to identify special-status plants and butterflies (or larval host species) and nesting birds present within 150 feet of the general location of the outlet channel management area and access route. The pre-construction survey shall:
 - Be conducted by a qualified biologist no more than 30 days prior to commencement of the lagoon management period (defined as from May 15 to October 15). The biologist shall have familiarity with special-status plants and butterflies (or larval host species) of the area and experience with conducting special-status species and nesting bird surveys.
 - If no special-status plants or butterflies (or larval host species), or nesting birds are encountered, no further mitigation would be required for at least 30 days, unless additional measures are required by regulatory permit conditions obtained for the proposed Project.
 - Additional pre-construction surveys, specifically for nesting birds, shall be conducted such that no more than 30 days will have lapsed between the survey and outlet channel creation or maintenance activities.
 - If a special-status plant or larval host species for special-status butterflies or nesting birds are encountered, the location shall be documented and species-specific avoidance and minimization measures shall be prepared by the qualified biologist in coordination with SCWA and appropriate resource agencies.
 - The avoidance and minimization measures shall be implemented to prevent the loss of the species or abandonment of active nests, but shall also take the goal of the proposed Project (i.e., managing the lagoon water surface elevations high enough to enhance salmon rearing habitat while also minimizing flooding of the low-lying properties) into consideration.

- **Mitigation Measure 4.4.1b.** A worker environmental awareness training shall be included to inform construction personnel of their responsibilities regarding sensitive biological resources that are present within 150 feet of the general location of the outlet channel management area and access route. The training shall comply with the following measures:
 1. The training shall be developed by a qualified biologist familiar with the sensitive biological resources that are known or have the potential to occur in the area.
 2. The training shall be completed by all construction personnel before any work occurs in the outlet channel management area, including construction equipment and vehicle mobilization. If new personnel are added to the proposed Project, SCWA shall ensure that new personnel received training before they start working.
 3. The training shall provide educational information on the special-status species that are known or have potential to occur in the area, how to identify the species, as well as other sensitive biological resources (e.g., sensitive natural communities, federal and state jurisdictional waters). The training shall also review the required mitigation measures to avoid impacts on the sensitive resources, and penalties for noncompliance with biological mitigation requirements.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 4.4.2

Impact: **4.4.2. Short-term impacts to Sensitive Natural Communities.** The creation and maintenance of the lagoon outlet channel could adversely affect sensitive natural communities.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Of the various special-status or sensitive natural communities identified within the Estuary Study Area, one (Northern Dune Scrub) borders the outlet channel management area access route near the parking lot at Goat Rock State Beach. Consistent with current management practices, construction vehicles, equipment, and personnel would access the barrier beach from the paved parking lot at Goat Rock State Beach and would approach the outlet channel area by walking and/or driving north onto the beach. Although much of this area is developed or beach habitat, Northern Dune Scrub community is present adjacent to the access route and there is potential for this community to be inadvertently affected by encroachment by

construction vehicles, equipment, or personnel during creation and maintenance of the outlet channel. Such impact would be potentially significant. However, construction vehicles and equipment would avoid vegetated portions of the beach and dune habitats during ingress and egress, using the access point and barrier beach driving route that is currently used by lifeguarding trucks and other State Park vehicles. Also, the outlet channel, with the exception of its configuration, would be constructed and maintained consistent with all regulatory permits obtained for the Project.

The effects of these practices in addition to implementation of **Mitigation Measure 4.4.1b (Worker Environmental Awareness Training)** above would reduce potentially significant impacts on sensitive natural communities adjacent to the access route to less than significant.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 4.4.3

Impact: **4.4.3. Short-term impacts to Waters and Wetlands.** Creation and maintenance of the lagoon outlet channel could adversely affect federal and state jurisdictional waters.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Creation and maintenance of the outlet channel would adversely affect federal and state jurisdictional waters through direct modification by discharges of dredge material. Jurisdictional waters include waters of the United States and wetlands that are regulated under Section 404 of the Clean Water Act (CWA) and Section 10 of the River and Harbors Act. Waters of the United States are defined in Title 33 CFR Part 328.3(a) and include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The CEQA baseline for the Project already includes artificial breaching events, although the frequency of modifications to jurisdictional waters for the Project may be greater under the Project.

Creation and maintenance of the outlet channel will require authorization and permits from:

- the USACE under the Rivers and Harbors Act Section 10 and CWA Section 404;
- the North Coast Regional Water Quality Control Board (NCRWQCB) under CWA Section 401; and
- the CDFG under California Fish and Game Code Section 1602.

Such authorizations will include a number of conditions to avoid and minimize impacts to federal and state jurisdictional waters. This may include pre-construction notification, water quality protection measures (e.g., scheduling restrictions, erosion and sediment controls, non-sediment pollution controls), and post construction monitoring and reporting. Compliance with the conditions contained in these regulatory permits, in addition to implementation of **Mitigation Measure 4.4.1b (Worker Environmental Awareness Training)** above, would reduce potentially significant impacts on federal and state jurisdictional waters to less than significant.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 4.4.4

Impact: **4.4.4. Short-term impacts to Wildlife Movement and Nursery Sites.**
Creation and maintenance of the lagoon outlet channel could adversely affect federal and state jurisdictional waters.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

As described in the Final EIR, habitats within the general location of the outlet channel management area and access route support wildlife movement, as well as wildlife nursery sites. Harbor seals regularly use the beach and channel as a travel route between the ocean and river habitats, and California sea lions and northern elephant seals are occasional users. Harbor seals also use the beach and open water habitats of the Russian River as sites to raise their pups. The presence of construction vehicles, equipment, and personnel during the creation and maintenance of the outlet channel could disrupt wildlife species movement patterns and/or rearing activities. Such impact would be potentially significant.

However, the CEQA baseline for the Project already includes frequent human-related disturbances within the outlet channel management area and access route. These include disturbances associated with artificial breaching events and recreation activities. Additionally, the outlet channel would be in the same location and, with the exception of its configuration, would be constructed and maintained as under current management practices, and in compliance with all regulatory permit conditions obtained for the Project. The effects of these practices in addition to implementation of **Mitigation Measure 4.4.1b (Worker Environmental Awareness Training)** above would reduce potentially significant impacts on wildlife movement and nursery sites to less than significant.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 4.4.10

Impact: **4.4.10. Wildlife Movement and Nursery Sites.** Long-term adaptive management of the Estuary as a lagoon could interfere with wildlife movement or impede the use of nursery sites.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The increased duration of inundation and changes in vegetation community composition would not alter the ability of animals to move along the river edge. There would be no significant impact on the movement of wildlife along the Russian River corridor. There could be some adverse change in the availability of riverine marsh, tributary streams, or back-channel ponding for amphibian breeding (nursery) sites. However, as noted in the Final EIR's discussion of Impact 4.4.6 (Natural Communities), there will be offsetting increases and decreases in such habitat as the water is retained for longer periods and a potential increase in wetland communities (Coastal and Valley Freshwater Marsh), and hence no net loss of amphibian nursery sites. Impacts and mitigation associated with effects to pinniped movement and nursery sites are discussed above, below and in the Final EIR (Impacts 4.4.1, 4.4.4, and 4.4.8).

The impact would be less than significant with implementation of **Mitigation Measures 4.4.1a (Pre-Construction Survey), 4.4.1b (Worker Environmental Awareness Training), and 4.4.8.**

- **Mitigation Measure 4.4.8.** In compliance with the Incidental Harassment Authorization, SCWA will conduct seal counts at the Jenner haulout and at nearby coastal and river haulouts in accordance with methods described in the Russian River Management Activities Pinniped Monitoring Plan (Pinniped Monitoring Plan), dated September 9, 2009, or as updated by requirements of NMFS under the MMPA. If monitoring during the lagoon management period indicates decreases in overall use at the Jenner haulout are correlated with increases in use at the three closest haulouts, SCWA shall consult with NMFS and CDFG to alter the Estuary Management Plan such that the haulout site is maintained as a resource. The IHA does not allow for long-term harassment or alteration of habitat conditions that would contribute to abandonment of the Jenner haulout.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

B. CULTURAL RESOURCES

CEQA FINDING NO. 4.8.1

Impact: **4.8.1. Change in the significance of an historical resources or unique archaeological resource.** The proposed Project could cause a substantial adverse change in the significance of a historical resource or unique archaeological resource.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Ground-disturbing activities associated with the outlet channel creation and maintenance would occur in recently deposited and annually disturbed materials that have a very low potential to contain cultural materials. The variations in the annual water surface elevation on the Russian River would remain within previously recorded levels following Project implementation. There is a low potential for archaeological materials to be uncovered from the implementation of the Project.

While unlikely, the possibility of encountering archaeological materials cannot be entirely discounted. In the event that cultural materials are found during Project implementation, **Mitigation Measure 4.8.1** would reduce impacts to historical or archaeological resources to less-than-significant.

- **Mitigation Measure 4.8.1.** If discovery is made of items of historical or archaeological interest, the contractor or SCWA staff shall immediately cease all work activities in the area (within approximately 100 feet) of discovery. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse, and shipwreck remains. After cessation of excavation the contractor shall immediately contact SCWA, State Parks, the USACE, and the California State Lands Commission. The contractor shall not resume work until authorization is received from all agencies.
1. In the event of unanticipated discovery of archaeological materials occurs during construction, SCWA shall retain the services of a qualified professional archaeologist to evaluate the significance of the items prior to resuming any activities that could impact the site. A qualified maritime archaeologist shall be retained to examine shipwreck remains or related submerged artifacts if

discovered near the river mouth during outlet channel creation or maintenance.

2. In the case of an unanticipated archaeological discovery, if it is determined that the find is potentially eligible for listing in the California and/or National Registers, and the site cannot be avoided, SCWA shall provide a research design and excavation plan, prepared by a qualified archaeologist, outlining recovery of the resource, analysis, and reporting of the find. The research design and excavation plan shall be approved by SCWA, State Parks, and USACE. The California State Lands Commission shall provide approval of a research design for shipwreck remains or related submerged artifacts. Implementation of the research design and excavation plan shall be conducted prior to work being resumed. SCWA will coordinate with State Parks and USACE to develop an action plan that can be implemented in the event that flooding is imminent and breaching must occur immediately.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 4.8.2

Impact: **4.8.2. Human remains.** The proposed Project could disturb human remains, including those interred outside of formal cemeteries.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Ground-disturbing activities associated with the outlet channel creation and maintenance will occur in recently deposited and annually disturbed materials that have a very low potential to contain human remains. The variations in the annual water surface elevation on the Russian River will remain within previously recorded levels following Project implementation. There is a low potential for the discovery of human remains from the implementation of the Project.

While unlikely, the possibility of encountering human remains cannot be entirely discounted. In the event that human remains are found during Project implementation, **Mitigation Measure 4.8.2** would reduce the impacts to disturbance of human remains to less-than-significant.

- **Mitigation Measure 4.8.2.** If potential human remains are encountered, the contractor or SCWA staff shall halt work in the vicinity of the find and contact the Sonoma County coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. The SCWA will also notify by telephone the USACE archaeologist and permit manager. If the coroner

determines the remains are Native American, the coroner will contact the Native American Heritage Commission (NAHC). As provided in Public Resources Code Section 5097.98, the NAHC will identify the person or persons believed to be most likely descended from the deceased Native American. The Most Likely Descendent (MLD) makes recommendations for means of treating the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. Work shall cease in the immediate area until the recommendations of the appropriate MLD are concluded.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

C. NOISE

CEQA FINDING NO. 4.9.1

Impact: **4.9.1. Ambient Noise Levels.** The Project would result in periodic noise levels above existing ambient conditions.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Implementation of the Project would require the use of up to two pieces of heavy equipment, such as an excavator and/or bulldozer. At the start of the management period, when configuring the proposed lagoon outlet channel for the first time that year, it is anticipated that the machinery would operate for up to two consecutive working days in the vicinity of the lagoon outlet channel. The frequency of equipment operation on the barrier during the lagoon management period could include up to 18 additional maintenance activities over the course of the lagoon management period, depending upon the performance of the outlet channel. This represents a potential incremental increase in temporary noise impacts over existing conditions.

With the integration of **Mitigation Measure 4.9.1**, noise levels associated with off-site vehicle trips would be negligible and would result in a less than significant impact.

- **Mitigation Measure 4.9.1.** Time of Day Limits and Notice to Residents. The SCWA shall limit activities at the lagoon outlet channel that involve the use of heavy equipment to between local sunrise to local sunset.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

D. HAZARDS AND HAZARDOUS MATERIALS

CEQA FINDING NO. 4.12.2

Impact: **4.12.2. Accidental Releases of Hazardous Materials.** The Project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Project activities include the use of earth-moving equipment, such as an excavator or bulldozer, and trucks to transport work crews and equipment. These activities are similar to existing operations to breach the barrier beach. Maintenance and fueling of vehicles and equipment would occur outside of the Project area. Hazardous materials would not be used as a part of the Project activities; however, equipment and trucks would contain fuels, oils, and lubricants and an accidental release of small quantities of these materials could occur.

The occurrence of this type of spill can be minimized through the use of best management practices and the implementation of **Mitigation Measure 4.12.2**. In addition, this type of spill could be cleaned up according to regulations and would not create a significant hazard to the public or the environment.

- **Mitigation Measure 4.12.2.** To minimize the potential for accidental spills from equipment and to provide for a planned response in the event that an accidental spill does occur, SCWA shall implement the following construction best management practices:
 1. Prohibit on-site fueling of vehicles and construction equipment;
 2. Maintain spill containment and clean up equipment onsite; and
 3. Ensure that construction personnel are trained in proper material handling, cleanup, and disposal procedures.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

E. PUBLIC SERVICES AND UTILITIES AND PUBLIC SAFETY

CEQA FINDING NO. 4.13.3

Impact: **4.13.3. Public Safety During Channel Creation.** The Project could substantially affect public safety at the outlet channel location during channel creation.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

During continued artificial breaching and outlet channel creation, SCWA will deploy and operate heavy machinery on the beach. This activity is consistent with existing artificial breaching practices, which are currently implemented in accordance with SCWA's Standard Operational Procedures. To minimize hazards to beach visitors, SCWA will contact State Parks lifeguards, post advanced signage, and restrict beach access. Additionally, as part of Project implementation, SCWA will continue to implement and comply with its Standard Operational Procedures, discussed in detail in the Final EIR. After outlet channel establishment, construction vehicles will be removed and beach access will be restored. While public citizens are responsible for safe enjoyment of the beach, the SCWA will implement **Mitigation Measure 4.13.1**, installing signage at key locations to notify the public of potential safety hazards associated with beach erosion and hydrologic action at the outlet channel or artificial breaching location.

- **Mitigation Measure 4.13.1.** Following outlet channel creation or artificial breaching, the Water Agency will install semi-permanent signage notifying beach users of channel conditions, potential for safety hazards from beach erosion or hydrologic action, and emergency contact information. Signage should be posted and maintained at key locations, such as the parking lot at Goat Rock State Beach Parking lot, the unofficial beach access trail located on the north side of the beach off Highway 1, and 100 feet on either side of the outlet channel.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

F. CUMULATIVE

CEQA FINDING NO. 5.1

Impact: **5.1. Short-term (Construction-related) Cumulative Impacts.** Concurrent construction of the projects within the Russian River Watershed in northern Sonoma County could result in cumulative short-term impacts associated with construction activity

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The Project would not involve typical construction activities, but rather it would include short-term activities associated with the outlet channel creation or artificial breaching activities as required. Long-term operational activities associated with the Project are partly a continuation of existing practices. These activities would potentially coincide with implementation of the projects described in the cumulative impacts analysis in SCWA's EIR. As described in Chapter 4.0 of the Final EIR, the short-term impacts associated with the proposed Project include temporary generation of noise, traffic and access disruptions that could affect adjacent land uses, wildlife, aesthetics, public services and utilities, or recreational visitors. These impacts could contribute to a cumulatively significant effect if incurred in conjunction with impacts from other related projects.

Project impacts can be mitigated to less than significant levels by implementation of **Mitigation Measures 4.2.2, 4.4.1a and 4.4.1b, 4.4.8, 4.8.1, 4.8.2, 4.9.1, 4.12.2, and 4.13.1**. Furthermore, these impacts would be localized to the outlet channel location at Goat Rock State Beach, and do not directly overlap geographically with any other recent, planned or ongoing, or foreseeable future project identified in the Final EIR; therefore the cumulative impact is equivalent to the Project-specific impacts. Due to their short-term nature, and the inclusion of mitigation measures as identified above and below, the Project's contribution to short-term impacts is not cumulatively considerable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 5.2.12

Impact: **5.2.12. Cumulative Long-term Noise Impacts.** Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could result in a cumulatively considerable net increase in ambient noise.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

With the integration of **Mitigation Measure 4.9.1**, described above, the Project would not result in long-term noise impacts. Therefore in combination with the projects described in the Final EIR, the Project would not have a cumulatively considerable contribution to long-term ambient noise levels.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

II. SIGNIFICANT AND UNAVOIDABLE IMPACTS

The following impacts were determined in the EIR to be significant and unavoidable: 4.2.2, 4.2.3, 4.3.3, 4.3.4, 4.4.8, 4.7.1, 4.7.2, 5.2.2, 5.2.3, 5.2.5, 5.2.6, 5.2.7. For each impact, either no feasible mitigation could be identified, or the identified mitigation would be insufficient to reduce the impact to below a threshold of significance.

A. HYDROLOGY AND FLOODING

CEQA FINDING NO. 4.2.2

Impact: **4.2.2. Property Inundation.** The creation and maintenance of the outlet channel would alter the existing drainage pattern at the Estuary mouth, which could result in increased potential for inundation of parcels adjacent to the Estuary.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

As described in the Final EIR, the range of water surface elevations that occur within the Estuary would not change as a result of implementing the Project. However, the duration over which the target water surface elevations (e.g., 4.5 feet to 9 feet, with an

average of 7 feet) would be maintained would increase, depending upon the performance of the outlet channel. The duration of target water surface elevations would be increased from less than a few days, on average, to approximately one to five months, on average, within the lagoon management period. Thus, low-lying areas at or below the 9-foot elevation contour, which are currently naturally inundated only sporadically throughout the year, would remain inundated over longer durations, on average, during the lagoon management period.

Water surface elevations relative to parcels along the Estuary shoreline were reviewed within the Estuary Study Area, as required by the BO. Results of that review indicate that portions of about 78 parcels adjacent to the Estuary would be inundated at a water surface elevation of 9 feet. In most cases, the area of inundation would comprise channel margin (“shoreline”) and beach areas only, and no structures (e.g., homes, sheds, septic tanks, boat docks) would be directly affected. However, in a few cases, a preliminary analysis of the Estuary Study Area using aerial photographs, elevation data, and parcel information suggests that existing structures, primarily boat docks, would be inundated at a water surface elevation between 7 and 9 feet on nine parcels.

Mitigation Measure 4.2.2 requires SCWA to coordinate with NMFS and work with the property owners of the nine parcels to identify measures that would, if necessary, substantially minimize or avoid any damages to existing structures that would occur as a result of implementing the Project (i.e., increased flooding durations at the 7 and 9 foot elevation). Although Mitigation Measure 4.2.2 would reduce impacts to the nine parcels to the degree feasible relative to structures that may be inundated for a longer duration, no mitigation measures are available to reduce or avoid the inundation of private parcels to an elevation of up to 9 feet along the Estuary shoreline for longer durations during the lagoon management period. Therefore, these impacts are considered significant and unavoidable.

- **Mitigation Measure 4.2.2.** Concerning the nine parcels and associated structures (i.e., boat docks or boat ramps on 7 of the parcels, and homes or other buildings on the other two parcels) identified as APNs No. 099-080-008, 099-080-037, 099-120-009 (Visitor Center), 099-140-052, 099-140-055, 099-140-060, 099-140-063, 099-140-065, and 099-140-089, SCWA shall coordinate with NMFS and work with the property owners to identify measures that would, if necessary, substantially minimize or avoid any damages to existing structures that would occur as a result of implementing the Project (i.e., increased flooding durations at the 7 and 9 foot elevation). As appropriate, SCWA shall survey properties within the 9 foot elevation in greater detail to more accurately and precisely determine the elevation of the structures potentially at risk; this information shall be kept on record at SCWA and a copy shall be provided to each of the property owners.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

CEQA FINDING NO. 4.2.3

Impact: **4.2.3. Tsunami Risk.** A portion of the Project area is located within a mapped tsunami hazard zone, and therefore could be inundated in the unlikely event of a tsunami. Subsequently, increased water levels in the Estuary could increase the risk to people or structures within this area to loss, injury, or death involving flooding in the event of a tsunami.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Implementation of the Project during the lagoon management period would increase the frequency and duration of higher water levels in the Estuary, thereby reducing the storage capacity of the Estuary for a longer period of time as compared to existing conditions. This could exacerbate the risk of flooding and loss associated with a tsunami, should one occur. Increased Estuary surface water levels (and, subsequently, decreased storage capacity) may result in somewhat higher inland tsunami elevations in the lower portion of the Estuary, should one occur during the lagoon management period. In essence, portions of the Estuary which may retain a portion of the tsunami's flood volume when Estuary water levels are lower would be filled with water as a result of the Project, so the overtopping volume from the tsunami may propagate further landward. Though tsunamis are extremely rare events, and the specific effect of elevated Estuary water levels upon the tsunami flood risk cannot be reliably quantified at this point, the increase in the duration of target Estuary water levels would, nonetheless, likely increase the overall risk of flooding associated with a tsunami.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

B. WATER QUALITY

CEQA FINDING NO. 4.3.3

Impact: **4.3.3. Nutrients and Pathogens.** The change in the barrier beach breaching operations during the lagoon management period could adversely affect the water quality due to increased nutrient or indicator bacteria levels in the Estuary.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The primary sources of indicator bacteria for surface waters typically consist of point sources such as wastewater discharges and nonpoint sources such as septic systems and leach fields, agricultural uses, and storm drains. The Project itself will not result in any addition of bacteria or nutrients into the Estuary, but could result in concentrating such nutrients or bacteria, due to an increase in the residence time of water in the Estuary. Sampling results from 2009 and 2010 indicate there is a large variation in indicator bacteria levels observed through the different sections of the Estuary. These variations were observed to occur under both open and closed mouth conditions and may be seasonal as well. As noted in Section 4.3 of the Final EIR, there are currently no regulatory limits on nutrient and bacteria levels for estuarine systems, only freshwater systems.

Under existing conditions, the residence time of water within the Estuary varies depending upon barrier beach conditions. Residence time is a function of river flows into the Estuary, discharge at the river mouth, seepage through the barrier beach, and other losses, such as evaporation and groundwater infiltration. Under current conditions, the estimated residence time in the Estuary ranges from approximately one day, during open tidal conditions, to approximately 27 days, under full closure conditions. With artificial breaching under existing conditions, the actual residence time within the Estuary during closure events is the time period between barrier beach formation and mouth closure, and the implementation of artificial breaching by SCWA. This time period is typically between five and 14 days. During this timeframe, standing water conditions exist, as there is no outlet channel through the barrier beach, although seepage through the barrier beach still occurs.

Under the Project, the proposed outlet channel would convey water from the Estuary to the ocean, supporting a flow-through freshwater lagoon system that will function at a “steady-state” in terms of storage, maintaining lagoon water levels in a perched state that is also below flood stage. Inflow to the Estuary would be matched primarily by outflow conveyed by the channel and seepage through the barrier beach. Other natural losses, such as evaporation, would provide additional, but minor losses. Therefore, establishment of the outlet channel would include flow through the Estuary towards the outlet channel, as opposed to full closure conditions, which limits output to seepage through the barrier beach.

As discussed in the Final EIR, the precise response of the Estuary to the Project cannot be predicted with certainty. For example, in 2010, there was no clear pattern of potential lagoon management influences on indicator bacteria levels early in the season, as there were elevated levels observed at various stations during both open and closed conditions. However, indicator bacteria levels increased at all stations during and following increased freshwater inflows related to upstream dam removals by parties other than SCWA at the end of September, and during the repeated barrier beach closures in early October. At this time, it is not known what role increased inflows have on the elevated indicator bacteria levels observed during these closures and whether or not these increases would occur, or persist, without these inflows.

Adverse water quality conditions have occurred as part of the natural physical processes of the Estuary under existing conditions, and may occur in the future both with, and without, implementation of the Project. It is anticipated that nutrient and bacteria conditions under the Project would remain within the range of those experienced within the Estuary over the past 15 years, but that the duration of those conditions would likely increase as a result of the Project. Therefore, based upon the best available information, the Final EIR concludes that the proposed Project would have the potential to result in significant and unavoidable impacts to water quality related to bacterial and nutrient levels in the Estuary.

No feasible mitigation measures exist to reduce this impact to an insignificant level. The SCWA does not have regulatory control over inputs of indicator bacteria, nutrients, or other pollutants into the Estuary. Although the Project's Adaptive Management Plan includes provisions for breaching in the event that adverse flooding conditions, water quality conditions, or biological resource conditions warrant, after consultation with the NMFS and California Department of Fish and Game, this may not ensure the avoidance of significant impacts to nutrient or indicator bacteria levels in the Estuary.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

CEQA FINDING NO. 4.3.4

Impact: **4.3.4.** The change in the barrier beach breaching operations during the lagoon management period (i.e., May through October) could change the duration and/or geographic extent of saline conditions in the Estuary. This could extend the period of time groundwater wells experience brackish water intrusion.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The Final EIR notes that limited well water quality data along with anecdotal evidence suggest that groundwater in some wells near the Estuary becomes brackish during certain times of the year, especially in the summer and fall. The reported brackish water intrusion in local groundwater wells is an existing condition and there is no evidence to indicate it would change under the proposed Project. However, there is evidence indicating that during periods when the Estuary is closed, it becomes stratified, with a freshwater layer on top, and a saltwater layer on the bottom. This stratification could result in increased salinity intrusion into the groundwater. Any increased salinity in the groundwater wells would likely be a seasonal condition and would diminish after the lagoon management period ends and winter rains begin.

The Project could also have the opposite effect on salinity in the Estuary. Depending upon timing and performance, the adaptive management of the barrier beach could ultimately reduce the inflow of seawater while increasing the accumulation of freshwater to such a degree that salinity could decrease in the wells previously affected by temporary brackish conditions. However, the depth of the Estuary and observed stratified conditions may limit the potential for freshwater lagoon conditions to directly influence groundwater.

As noted in the Final EIR, the precise response of the Estuary to the Project cannot be predicted with certainty. Local surface and ground water quality may be improved in some areas of the Estuary and diminished in others. However, it is anticipated that conditions would remain within the range of those experienced within the Estuary over the past 15 years, although the duration of those conditions during the lagoon management period would likely be increased. The possible increase in groundwater salinity could be a significant and unavoidable secondary impact to groundwater quality.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

C. BIOLOGICAL RESOURCES

CEQA FINDING NO. 4.4.8

Impact: **4.4.8. Protected Marine Mammals.** Long-term adaptive management of the Estuary as a lagoon could adversely affect protected marine mammal species.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

As analyzed in the Final EIR, the Project could adversely affect harbor seals, as well as California sea lions and northern elephant seals (collectively referred to as pinnipeds), through habitat loss or modification during the one to five month lagoon management period by 1) impeding access into the Estuary due to barrier beach closure and establishment of an outlet channel, and 2) inundation of interior river haulouts.

Impeded access caused by maintenance of a barrier beach closure, coupled with increased levels of human-related disturbances which have historically contributed to the notable decline in numbers of pinnipeds hauled-out when the mouth is closed, could be considered significant. However, observations of harbor seal behavior during the July 2010 outlet channel creation pilot indicate that pinnipeds are able to access the lagoon and interior river haulout locations via the outlet channel. Historic conditions would be restored during the months outside of the lagoon management period; therefore, access to the Estuary and interior river haulouts via would not be permanently

restricted. Continued monitoring of the Jenner haulout and peripheral haulouts would provide: an indicator of haulout use or decline; a tracking mechanism for assessing future impacts; and a basis for shifting adaptive management activities to respond to changes in haulout use. The IHA issued by NMFS under the Marine Mammal Protection Act does not permit long-term harassment or alteration of habitat conditions that would contribute to abandonment of the Jenner haulout, nor could such an authorization be expected in the future. Therefore, the potential impact of the Project for a longer duration during the lagoon management period would be less than significant with implementation of **Mitigation Measure 4.4.8** (see Impact 4.4.10).

Under the Project, Estuary water surface levels would be increased up to 7 to 9 feet elevation for a longer duration, which could inundate the mudflat/gravel bar areas that provide suitable haulout sites within the river, reducing the availability of haulout locations within the Estuary itself. Such modification of suitable habitat would be a potentially significant impact, as it could affect pinniped resting, foraging, and movement patterns, and rearing activities.

Although availability of suitable haulout sites along the mainstem Russian River would be affected by higher water surface elevations, the duration of these higher elevations would be dependent upon outlet channel performance. Tidal conditions would be restored during the months outside of the lagoon management period. Therefore, the Project's effect on interior river haulouts would be seasonal. Additionally, there are other haulout sites available regionally. Continued monitoring of the interior river haulouts and peripheral haulouts would provide an indicator of haulout use or decline, and provide a tracking mechanism for assessing future impacts and a basis for shifting adaptive management activities should the Project have a significant effect on the harbor seals. The potential inundation impact on interior river haulouts for a longer duration during the lagoon management period remains significant even with implementation of **Mitigation Measure 4.4.8**.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

D. RECREATION

CEQA FINDING NO. 4.7.1

Impact: **4.7.1. Disruption of Use of Recreational Facilities.** The proposed Project would temporarily restrict access and beneficial use of recreational sites or facilities.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Maintenance of the outlet channel to form a freshwater lagoon during the proposed lagoon management period would sustain elevated water levels in the Estuary between 4.5 and 9 feet, with a target elevation of 7 feet, for a longer duration, which could inundate shoreline properties and beach areas. The average duration of Estuary closure under current conditions is between five to 14 days; under the Project, the average duration of closure may increase to between one and five months, depending upon outlet channel performance.

Inundation associated with higher water levels would reduce the amount of beach acreage available within the Estuary, and these conditions would occur for a longer duration, depending upon performance of the outlet channel. At a 9-foot water elevation, beach area would remain present at most gravel bar locations, and riverside access to these gravel bars would still be available. Higher water surface elevations within the Estuary may be perceived as a benefit to recreational boaters, and higher water levels may enhance recreational experiences at key recreational beaches occurring within the maximum inundation area, including Casini Beach, Monte Rio, and Vacation Beach. However, no mitigation measures are available to reduce or avoid the inundation of gravel bar and shoreline beaches to an elevation of up to nine feet along the Estuary shoreline for longer durations during the lagoon management period. According to SCWA's Final EIR, mitigation suggested in comments on the Draft EIR, such as providing new points of access to other recreational areas, could create separate environmental impacts, such as increased traffic, public safety issues, erosion, and impacts to sensitive biological resources in previously undisturbed areas, and so are infeasible and potentially not commensurate with impacts that only occur during part of the 5-month lagoon management period.

Therefore, these impacts are considered significant and unavoidable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

CEQA FINDING NO. 4.7.2

Impact: **4.7.2. Eliminate or Modify an Existing Recreational Resource.** The proposed Project would likely reduce the occurrence of open channel tidal conditions conducive to surfing activities.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

During times of the year when the Estuary is open, Goat Rock is a popular surfing location due to outflow from the Estuary depositing sediment into the ocean, which creates a unique wave break. Current barrier beach management practices create conditions that promote a tidal Estuary channel, making this the dominant condition at the site. In contrast, the Project's proposed outlet channel is designed to minimize scour and sediment flow in the channel and, therefore, minimize sediment deposition within the wave zone. The reduction or loss of this surf break occurrence during summer months is of particular concern to local surfers. Although the Project would not directly eliminate this temporarily-occurring recreational resource for the duration of the year, the Project would likely reduce the overall occurrence of the surf break at Goat Rock for current users during the lagoon management period. Outside the lagoon management period (October 16 through May 14), however, it is anticipated that ocean topography offshore of Goat Rock State Beach would return to previous conditions and the surfing location would provide the same recreational experience for users as existing conditions.

Although the specific set of variables that contribute to surfable wave conditions, and their frequency of occurrence, are difficult to quantify, the Project would reduce the occurrence of open channel, tidal conditions, and as such, would likely reduce the overall occurrence of surfable wave conditions at the mouth of the Russian River. There are no feasible measures available to mitigate this impact. The construction and maintenance of artificial reefs, which have been suggested by some, to alter or improve surfing conditions, would have the potential for their own separate and substantial environmental effects and have been proven very limited in their successful application.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

CUMULATIVE

CEQA FINDING NO. 5.2.2

Impact: **5.2.2. Cumulative Long-term Hydrologic Impacts.** Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, would alter the existing draining pattern at the Estuary mouth, which could result in increased potential for inundation of parcels adjacent to the Estuary.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Implementation of identified cumulative projects, as well as general development within the Russian River Watershed, would have the potential to increase flood flows during runoff events, and may increase the 100-year floodplain elevations in the vicinity of the Estuary. Implementation of the Project would not be expected to contribute to potential increase in 100-floodplain elevations, or increases in stormwater runoff or peak velocities.

However, during the lagoon management period, implementation of the Project would increase water surface elevations within the maximum backwater area, as well as the duration over which the target water surface elevations (e.g., 4.5 feet to 9 feet, with an average of 7 feet) would be maintained, depending upon the performance of the outlet channel. Within the Estuary Study Area, portions of approximately 78 parcels would be inundated at a water surface elevation of 9 feet. In most cases, the area of inundation would comprise channel margin (“shoreline”) and beach areas only, and no structures (e.g., homes, sheds, septic tanks, boat docks, etc.) would be directly affected. However, in a few cases, a preliminary analysis using aerial photographs, elevation data, and parcel information suggests that existing structures, primarily boat docks, would be inundated at a water surface elevation between 7 and 9 feet. Similar effects may occur to additional properties within the maximum backwater area between Austin Creek and Vacation Beach.

The increase in the elevation and duration over which these structures would be annually inundated, could result in potentially more damage than that sustained under existing conditions. With respect to these parcels and structures, this would be a potentially significant impact resulting from implementation of the Project; **Mitigation Measure 4.2.2** would reduce this impact to the degree feasible relative to structures that may be inundated for a longer duration. However, no mitigation measures are available to reduce or avoid the inundation of private parcels to an elevation of up to 9 feet along the shoreline within the maximum backwater area for longer durations during the lagoon management period. Therefore, the Project’s contribution to impacts related to inundation of properties along the Estuary shoreline during the lagoon management period would be cumulatively considerable, and would therefore be cumulatively significant and unavoidable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

CEQA FINDING NO. 5.2.3

Impact: **5.2.3. Cumulative Long-term Tsunami Effect.** Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could increase the risk to people or structures within this area to loss, injury, or death involving flooding in the unlikely event of a tsunami.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Projects identified in the EIR's cumulative impacts analysis are generally outside of the Estuary, and would not be anticipated to affect tsunami response. General development within and adjacent to the mapped tsunami flood zone along the Estuary would have the potential to crease the risk of inundation in the unlikely event of a tsunami. Though tsunamis are extremely rare events, and the specific effect of elevated Estuary water levels upon the tsunami flood risk cannot be reliably quantified at this point, the increase in the duration of target Estuary water levels would, nonetheless, likely increase the overall risk of flooding associated with a tsunami. Since the duration of elevated Estuary water levels would increase as a result of the Project (e.g., from an average of less than a few days to approximately one to five months, where the Estuary water levels would be at or near 7 feet), the subsequent probability of a tsunami of sufficient magnitude to cause damage occurring concurrently with elevated Estuary water levels would also increase. Increased storage conditions currently occur episodically, but their duration is limited by artificial breaching practices currently implemented by SCWA.

In considering the increased duration of higher water surface elevations, and the increase in risk with respect to people, adequate warning would likely be given in the event of a potential tsunami generating event. This would not necessarily mitigate or alleviate the increased risk of loss as it pertains to existing structures or property (i.e. equipment, cattle, etc.). Given the uncertainty of the magnitude of this potential impact, and lacking more Estuary-specific information concerning tsunami effects, the following conclusion regarding significance is made: in the unlikely event that a tsunami of sufficient magnitude occurs within the Jenner area during the 5-month lagoon management period, the Project would result in an increased risk of structural damage or loss for properties just outside of the areas that would currently be inundated by tsunami-related flooding. There is no feasible mitigation for this potential impact. Therefore, the Project's contribution to this impact would be considerable, and as such, is considered cumulatively significant and unavoidable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

CEQA FINDING NO. 5.2.5

Impact: **5.2.5. Cumulative Long-term Impacts on Water Resources.**
Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could result in cumulative long-term impacts to water quality related to bacteria and nutrient levels.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Reduced inflows into the Estuary could reduce water quality conditions, particularly with respect to bacteria and nutrient levels within the Estuary during freshwater lagoon conditions. Reduced flows may reduce the assimilative dilution capacity of Russian River flows upstream of the Estuary and, assuming inputs within the watershed remain constant, could result in increased concentrations of nutrients and indicator bacteria. Reduced water quality would have the greatest potential to occur during dry hydrologic years. Areas upstream of the Estuary (upstream of Austin Creek) are identified by the NCRWQCB as impaired for bacteria. Water quality sampling by various entities have not identified bacterial levels that warrant listing the Estuary as impaired, and the 303(d) listing for bacteria is limited to areas upstream of Austin Creek. Sampling events in 2009 and 2010 indicate there is a large variation in indicator bacteria levels observed through the different sections of the Estuary. These variations were observed to occur under both open and closed mouth conditions and may be seasonal as well.

Implementation of the Project would not alter water quality inputs for nutrients or indicator bacteria into the Estuary, and closed Estuary conditions with the outlet channel established would still include flow through processes, although residence time within the Estuary would be increased by approximately one week compared to existing artificial breaching conditions. However, because of the limited nature of nutrient and indicator bacteria data collection during closure conditions, there is insufficient information to definitively conclude whether the adaptive management program would result in an increase, decrease, or no substantial adverse effect on nutrient or bacteria levels within the Estuary. Therefore, in the absence of technical certainty, the Project would have the potential to contribute to significant and unavoidable secondary impacts to public health related to nutrient and bacterial levels in the Estuary. When considered cumulatively with the Fish Habitat Flows and Water Rights Project (Fish Flow Project), the potential for this occurrence may be increased, primarily in dry years, when inflow to the Estuary is reduced. The occurrence, nature and timing of potential impacts related to the Fish Flow Project will be confirmed during the environmental review process for that project. However, these impacts are considered cumulatively considerable.

It should be noted that the conditions of the BO and the Project's Adaptive Management Plan include provision for breaching in the event that flooding conditions, water quality conditions, or biological resource conditions warrant. Therefore, no additional mitigation measures are required or available relative to the occurrence of this impact.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

CEQA FINDING NO. 5.2.6

Impact: **5.2.6. Cumulative Long-term Groundwater Impacts.** Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could change the duration and/or geographic extent of saline conditions in the Estuary. This could extend the period of time groundwater wells experience brackish water intrusion.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Projects identified in the EIR's cumulative impacts analysis are generally outside of the Estuary and corresponding groundwater basin, and would not be anticipated to affect groundwater conditions. General development within and adjacent to along the Estuary that relies on groundwater use would have the potential to alter groundwater conditions. Additionally, implementation of the Fish Flow Project would reduce summer instream flows; this reduction could alter water quality within the Estuary, and could contribute to secondary effects to groundwater quality identified for the Project.

The Project could possibly extend the amount of time that some groundwater wells experience higher salinity during certain times of the year. The existence of salinity in groundwater wells, itself, is not a significant effect of the Project because salt water influence has reportedly already been a recurring condition in wells located along the Estuary since at least the 1950s. However, there is insufficient information to conclude whether the adaptive management program would result in an increase, decrease, or no substantial adverse effect on the background or current brackish groundwater conditions in and adjacent to the Estuary.

Reduced instream flows related to the Fish Flow Project could also have the potential to contribute to secondary water quality effects along the Estuary. Anecdotal information indicates that brackish water conditions within the groundwater may be related to overall freshwater flows within the Estuary, and that freshwater conditions within wells are improved with the onset of increased flows in the river following storm events.

However, because of the lack of groundwater data along the Estuary, there is insufficient information to definitively conclude whether the adaptive management program would result in an increase, decrease, or no substantial adverse effect on groundwater quality within the Estuary. Therefore, in light of the existing, although limited, data and in the absence of technical certainty, the Project would have the potential to contribute to significant and unavoidable secondary impacts to groundwater quality in the Estuary. When considered cumulatively with the Fish Flow Project, the potential for this occurrence may be increased, primarily in dry years, when inflow to the Estuary is reduced. The occurrence, nature and timing of potential impacts related to the Fish Flow Project will be confirmed during the environmental review process for that project. However, these impacts are considered cumulatively considerable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

CEQA FINDING NO. 5.2.7

Impact: **5.2.7. Cumulative Long-term Impacts on Biological Resources.**
Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could result in cumulative long-term impacts to biological resources.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Artificial breaching or lagoon outlet channel creation and maintenance under the Project could have a short-term effect on sensitive plant species (i.e. Tidestrom's lupine in dune habitat) that have a high potential to be located within the Project area; however the impact would be reduced through pre-construction survey and avoidance measures (**Mitigation Measures 4.4.1a and 4.4.1b**). Disturbance to harbor seals during outlet channel creation and maintenance may be a nuisance and constitute take under the Endangered Species Act; however the Project incorporates measures required under the Incidental Harassment Authorization, and therefore the Project's take would be less than significant. No other projects listed in the EIR's cumulative impacts analysis are anticipated to have a direct adverse effect on dune habitats or pinnipeds. Therefore, the Project's potential impacts during artificial breaching and creation of the outlet channel, in combination with projects described in the EIR's cumulative impacts analysis, would not contribute to a cumulatively significant impact to these biological resources; the Project contribution would be less than cumulatively considerable.

Long-term implementation and increased duration of the freshwater lagoon may have significant adverse effects that, considered concurrently with other projects in the Russian River Watershed, may be cumulatively considerable. The projects considered in the EIR's cumulative impacts analysis are anticipated to have adverse impacts on biological resources. Potential cumulatively considerable contributions to impacts are summarized below.

Marine Mammals

Lagoon adaptive management could adversely affect harbor seals, as well as California sea lions and northern elephant seals (collectively referred to as pinnipeds), through habitat loss or modification during the one to five month lagoon management period. This potential habitat modification would include impeded access into the Estuary due to barrier beach closure and establishment of an outlet channel; and inundation of interior river haulouts. Based upon observation of use during shallow outlet channel conditions, effects related to impeded access are not considered significant with implementation of **Mitigation Measures 4.4.1a and 4.4.1b**. However, harbor seals use regular haulouts located within the Estuary, including the Jenner (Penny) logs, Paddy's Rock, and Chalanchawi. Under the proposed Project, water levels would be increased up to 7 to 9 feet for a longer duration, which could inundate the mudflat/gravel bar areas that provide suitable haulout sites within the river, reducing their availability of haulout locations within the Estuary itself. Such modification of suitable habitat would be a potentially significant impact, as it could affect pinniped resting, foraging, and movement patterns, and rearing activities. Therefore, the impacts of the Project, considered concurrently with other projects, would be cumulatively considerable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

CEQA FINDING NO. 5.2.10

Impact: **5.2.10. Cumulative Impacts to Recreation.** Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could result in cumulative long-term impacts to recreation and recreational facilities.

Finding(s): (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

As discussed above, the Project has the potential to modify or eliminate the surf break during the lagoon management period. The surf break is associated with open tidal conditions, either occurring naturally or immediately following artificial breaching

activities. Other projects in the Russian River Watershed, Sonoma's coastal area, or other habitat restoration projects would not directly result in degradation of the surf break at this location. However, reduced summer flows associated with the Fish Flow Project would likely increase the number of closure events occurring during the lagoon management period. Depending upon hydrologic year type, reduced summer flows would also assist in the management of the outlet channel, as less discharge via the outlet channel would be anticipated. This would reduce the potential for the outlet channel to erode open and re-establish tidal conditions in the Estuary. Considered cumulatively, it should be noted that the Project is designed to accommodate the observed range of inflows to the Estuary following natural closures that occur during the May 15 to October 15 lagoon management period.

Surf swells in the Sonoma Coast region are typically smaller during summer months; and anecdotal information asserts that, during summer months, the wave break elsewhere in the region is not comparable to the wave break at the Russian River mouth that is supported by open, tidal conditions at the Russian River mouth. The reduction or loss of this surf break occurrence during summer months is of particular concern to local surfers. Although the Project would not directly eliminate this temporarily-occurring recreational resource for the duration of the year, the Project would likely reduce the occurrence of the surf break at Goat Rock for current users during the lagoon management period.

During the non-management period from October 16 through May 14, it is anticipated that ocean topography offshore of Goat Rock State Beach would return to previous conditions and the surfing location would provide the same recreational experience for users as existing conditions. However, in light of local incidental recreational benefit enjoyed under current management practices, this reduction in the occurrence of surf break conditions is considered a significant impact. There are no available/ feasible mitigation measures that would effectively reduce or avoid the impact; therefore it is considered unavoidable.⁴

In addition to effects to surfing conditions, the increased frequency and duration of closures could result in longer inundation of shoreline properties and riverfront beaches, both relatively large, contiguous areas, as well as smaller, more discrete areas immediately adjacent to the active channel margin. Recreation facilities adjacent to the

⁴ As recorded in Section 2.6 of the Final EIR, participants in the scoping process recommended construction of an artificial reef to reduce adverse impacts to surfing; however construction of a physical structure would incur direct, however short-term, adverse environmental effects to marine life, hydrology, and geomorphology during construction. Some case studies demonstrate that artificial reefs can be multi-purpose, designed to improve sediment retention and protect beach from erosion, and constructed of materials that could enhance marine habitat. An artificial reef could function to dissipate swell energy across the entire length of the reef for the primary purpose of protecting beaches from erosion and sediment loss. Cases of successful artificial reefs are most prevalent outside of North America, in locations that are subject to severe weather (i.e. monsoons). Feasibility studies would need to be undertaken to determine if an artificial reef would be appropriate or functional in the Russian River area. Additionally, there is no guarantee that construction of an artificial reef would, in fact, improve surfing conditions; it would be entirely dependent on ocean conditions and any improvement would be speculative.

Estuary include Willow Creek Open Space, Willow Creek Environmental Camp, and private boat docks, and beaches (i.e. at Rien's Sandy Beach campsite and Casini Ranch). Riverfront beaches within the Project area are used as stopovers/rest areas, picnicking spaces, and sunbathing areas by recreational users, particularly kayakers and boaters on the River. Reduced beach area could be an inconvenience to recreational users. When considered cumulatively with lower flow conditions associated with the Fish Flow Project, the quality of recreational boating experience in the lower Russian River and Estuary could be adversely affected during dry hydrologic years.

Within the Estuary, at water surface elevations of 9 feet, beach area would remain present at most gravel bar locations, and riverside access to these gravel bars would still be available. Higher water surface elevations within the Estuary may be perceived as a benefit to recreational boaters within the lower 10 miles of the Russian River, and could offset lower flows. However, no mitigation measures are available to reduce or avoid the inundation of gravel bar and shoreline beaches to an elevation of up to 9 feet along the Estuary shoreline for longer durations that could occur during the lagoon management period. Therefore, these impacts are considered significant and unavoidable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact remains significant after application of all feasible mitigation.

EXHIBIT E – RUSSIAN RIVER ESTUARY MANAGEMENT PROJECT

STATEMENT OF OVERRIDING CONSIDERATIONS

STATEMENT OF OVERRIDING CONSIDERATIONS

The California State Lands Commission (CSLC) adopts this Statement of Overriding Considerations with respect to the impacts identified in the Final Environmental Impact Report (EIR) for the Sonoma County Water Agency's (SCWA's) Russian River Estuary (Estuary) Management Project (Project) that cannot be reduced, after application of all feasible mitigation, to a less than significant level. This includes the following impacts:

- Hydrology and Flooding, Impact 4.2.2: Property Inundation. The creation and maintenance of the outlet channel would alter the existing drainage pattern at the Estuary mouth, which could result in increased potential for inundation of parcels adjacent to the Estuary.
- Hydrology and Flooding, Impact 4.2.3: Tsunami Risk. A portion of the Project area is located within a mapped tsunami hazard zone, and therefore could be inundated in the unlikely event of a tsunami. Increased water levels in the Estuary resulting from the Project could increase the risk to people or structures within this area to loss, injury, or death involving flooding in the event of a tsunami.
- Water Quality, Impact 4.3.3: The change in the barrier beach breaching operations during the lagoon management period (May through October) could adversely affect the water quality in the Estuary due to increased nutrient or indicator bacteria levels in the Estuary.
- Water Quality, Impact 4.3.4: The change in the barrier beach breaching operations during the lagoon management period (May through October) could change the duration and/or geographic extent of saline conditions in the Estuary. This could extend the period of time that groundwater wells adjacent to the Estuary experience brackish water intrusion.
- Biological, Impact 4.4.8: Protected Marine Mammals. Long-term adaptive management of the Estuary as a lagoon could adversely affect protected marine mammal species by seasonally inundating river haulout locations.
- Recreation, Impact 4.7.1: Disruption of Use of Recreational Facilities. The proposed Project would temporarily restrict access and beneficial use of recreational sites or facilities.

Exhibit E – Russian River Estuary Management Project
Statement of Overriding Considerations

- Recreation, Impact 4.7.2: Eliminate or Modify an Existing Recreational Resource. The proposed Project would likely reduce the occurrence of open channel tidal conditions conducive to surfing activities.
- Cumulative, Impact 5.2.2: Cumulative Long-term Hydrologic Impacts. Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, would alter the existing draining pattern at the Estuary mouth, which could result in increased potential for inundation of parcels adjacent to the Estuary.
- Cumulative, Impact 5.2.3: Cumulative Long-term Tsunami Effect. Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could increase the risk to people or structures within this area to loss, injury, or death involving flooding in the unlikely event of a tsunami.
- Cumulative, Impact 5.2.5: Cumulative Long-term Impacts on Water Resources. Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could result in cumulative long-term impacts to water quality related to bacteria and nutrient levels.
- Cumulative, Impact 5.2.6: Cumulative Long-term Groundwater Impacts. Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could change the duration and/or geographic extent of saline conditions in the Estuary. This could extend the period of time groundwater wells experience brackish water intrusion.
- Cumulative, Impact 5.2.7: Cumulative Long-term Impacts on Biological Resources. Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could result in cumulative long-term impacts to biological resources.
- Cumulative, Impact 5.2.10: Cumulative Impacts to Recreation. Implementation of the Project, in combination with other identified cumulative projects within the Russian River Watershed and habitat enhancement projects, could result in cumulative long-term impacts to recreation and recreational facilities.

These impacts are specifically identified and discussed in more detail in the CSLC's CEQA Findings (Exhibit D) and in SCWA's Final EIR. While the CSLC has required all feasible mitigation measures, these impacts remain significant for purposes of adopting this Statement of Overriding Considerations.

Exhibit E – Russian River Estuary Management Project
Statement of Overriding Considerations

The EIR evaluated six alternatives to the proposed Project.

1. The Habitat Restoration Alternative analyzed the identification and restoration of alternate areas of the Russian River and its tributaries to create salmonid-rearing habitat outside of the Estuary.
2. The Temporary Outlet Standpipe Alternative analyzed a temporary structure that would be installed during the lagoon management period to allow for outflow from the River to maintain a perched lagoon.
3. The Reduced Project Alternative analyzed the same management elements as the Project's, but with a maximum target water level of eight feet (instead of a nine-foot maximum).
4. The Jetty Modification Alternative analyzed alteration of a deteriorated jetty through directional drilling or exposure and excavation of specific locations along the jetty structure at the mouth of the Russian River to improve subsurface outflow to increase subsurface outflow through the base of the jetty structure.
5. The Alternative Flood Control Measures Alternative analyzed other methods of protecting structures threatened by lagoon water levels, such as private property owners making physical modification to or raising their structures to avoid flooding or inundation damage associated with restoration of estuarine function.
6. The final alternative was the No Project Alternative.

Three additional alternatives were examined, but not carried forward to full analyses for the reasons stated in the EIR at pages 6-3 through 6-5.

The proposed Project, as described in Calendar Item No. 90, dated January 26, 2012, was selected because it is the only alternative identified in the Final EIR that will allow SCWA to meet the requirements of the Russian River Biological Opinion (BO) issued by the National Marine Fisheries Service (NMFS) and retain its "incidental take" authority, and because of the extent to which the proposed Project provides greater protection to the public and the environment over the No Project Alternative.

Notwithstanding the identification and analysis of the impacts that are identified in the Final EIR as being significant and potentially significant which may not be avoided, lessened, or mitigated to a level of insignificance, the CSLC, acting pursuant to Public Resources Code section 21081 and sections 15096 subdivision (h) and 15093 of the State CEQA Guidelines, hereby determines that specific economic, legal, social, technological and other benefits, including region-wide or statewide environmental benefits of the Project, outweigh any unavoidable, adverse impacts of the Project and that the Project should be approved.

Exhibit E – Russian River Estuary Management Project
Statement of Overriding Considerations

This Statement of Overriding Considerations applies specifically to those impacts found to be significant and unavoidable as set forth in the Final EIR. In addition, this Statement of Overriding Considerations applies to those impacts which have been substantially lessened but not necessarily lessened to a level of insignificance.

Based upon the objectives identified in the Final EIR and the detailed mitigation measures imposed upon the Project, the CSLC has determined that the Project should be approved, subject to such mitigation measures (Exhibit C, Mitigation Monitoring and Reporting Program), and that any remaining unmitigated environmental impacts attributable to the Project are outweighed by the following specific economic, fiscal, social, environmental, land use, and other overriding considerations:

1. The Project will allow SCWA to continue to provide flood protection to properties and structures surrounding the Estuary, including a building owned by California State Parks, by allowing SCWA to manage estuary water levels so that they do not exceed nine feet.
2. The Project will improve and enhance rearing habitat for threatened and endangered salmonid species, particularly steelhead, by reducing tidal influence and increasing the amount of habitat area and fresh water available to rearing salmon and steelhead during the lagoon management period, thus increasing the likelihood of the survival and recovery of these species.
3. The Project will allow SCWA to comply with the terms of the Russian River BO issued by NMFS in September 2008, and will ensure that SCWA operations continue to be protected by the “incidental take statement” contained in the Russian River BO, as well as the “Consistency Determination” issued by the California Department of Fish and Game, which allow SCWA to “take” listed salmonid species during the course of SCWA’s Estuary management, stream maintenance and flood control, and water supply activities without incurring liability under the federal or state Endangered Species Acts. The Project will thus protect public health and safety by enabling SCWA to continue to provide a safe, reliable wholesale supply of potable water to over 600,000 people in Sonoma and Marin Counties, and to provide flood protection services to properties and residents in many locations in Sonoma County. By enabling SCWA to provide such water supply and flood protection, the Project will also maintain jobs and enhance job creation, and stabilize and enhance property values and the receipt of property taxes by local governments, both in Sonoma County and surrounding areas. Without the ability to implement changes in water management practices consistent with the BO, SCWA may be restricted from fulfilling these services, or may be subject to penalties for violation of the Endangered Species Act.

Exhibit E – Russian River Estuary Management Project
Statement of Overriding Considerations

4. The Project will assist SCWA in its efforts to provide for the health and safety of staff and visitors to Goat Rock State Beach, as well as SCWA staff, during Estuary management activities.
5. The Project will assist in the protection and recovery of threatened and endangered salmonid species by implementing adaptive management activities that monitor biological productivity, water quality, and physical processes in the Estuary in response to the changes in management actions that control water surface elevations in the estuary-lagoon system, and refine management actions to achieve desired water levels to support biological productivity, while simultaneously providing flood management for properties adjacent to the Estuary. In the BO, NMFS found that continued water management practices and operations in the Russian River would likely impact California Coastal Chinook and *jeopardize* the survival of Central California Coast coho salmon and Central California Coast steelhead; the BO also found that continuation of SCWA's traditional breaching practices at the mouth of the river in particular "would contribute to reduced survival of juvenile salmonids that emigrate to the estuary" (Russian River Biological Opinion, 2008).

Conclusion

The CSLC has considered the Final EIR and all of the environmental impacts described therein including those that cannot be mitigated to a less-than-significant level and those that may affect Public Trust uses of State sovereign lands. The CSLC has considered the fiscal, economic, legal, social, environmental, and public health and safety benefits of the Project and has balanced them against the Project's unavoidable and unmitigated adverse environmental impacts and, based upon substantial evidence in the record, has determined that the benefits of the Project outweigh the adverse environmental effects. Based on the foregoing and pursuant to Public Resources Code section 21081 and State CEQA Guidelines sections 15096 subdivision (h) and 15093, the CSLC finds that the remaining significant unavoidable impacts of the Project are acceptable in light of the economic, fiscal, social, environmental, and public health and safety benefits of the Project. Such benefits outweigh such significant and unavoidable impacts of the Project and provide the substantive and legal basis for this Statement of Overriding Considerations.

The CSLC finds that to the extent that any impacts identified in the Final EIR remain unmitigated, mitigation measures have been required to the extent feasible, although the impacts could not be reduced to a less than significant level.

Based on the above discussion, the CSLC finds that the benefits of the Project outweigh the significant unavoidable impacts that could remain after mitigation is applied and considers such impacts acceptable.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

WP 7918

Southwest Region
777 Sonoma Ave., Room 325
Santa Rosa, CA 95404-4731

November 9, 2011

In response, please refer to:
151422SWR2006SR07316

Brian Bugsch
Chief, Land Management Division
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, California 95825-8202

Dear Mr. Bugsch:

This letter is in response to an October 21, 2011, request by Sarah Sugar of your staff for written confirmation that the preferred alternative within Sonoma County Water Agency's (SCWA) Environmental Impact Report (EIR) for the Russian River Estuary Management Project (Estuary Project) is consistent with the Reasonable and Prudent Alternative (RPA) detailed within NOAA's National Marine Fisheries Service's (NMFS) 2008 Biological Opinion regarding water supply, flood control operations, and channel maintenance conducted in the Russian River watershed (hereafter referred to as the "BO"). The Estuary Project entails adaptively managing the Russian River estuary outlet to enhance juvenile salmonid rearing habitat while minimizing flooding risk. Rearing habitat will be enhanced by reducing tidal influence within the Russian River estuary during a lagoon management period (May 15 – October 15) to increase freshwater habitat available to rearing juvenile salmonids. Adaptive management will require: 1) monitoring of biological productivity, water quality, and physical processes in the estuary in response to changes in the management practices that control water surface elevations in the estuary-lagoon system, and 2) refinement of management actions to achieve desired water levels that support biological productivity, while simultaneously providing flood management for properties adjacent to the estuary. The Project will occur entirely within the Russian River estuary, generally from the barrier beach at Goat Rock State Beach upstream to the town of Monte Rio, Sonoma County, California.

NMFS confirms that the preferred alternative within SCWA's EIR is consistent with NMFS' RPA from the 2008 BO. More importantly, NMFS would also like to stress the critical role the Estuary Project will play in restoring natural estuarine processes and improving habitat function within the lower Russian River watershed. Historically, perched lagoons commonly formed during summer months on many central and southern California rivers as reduced inflow and high ocean swells effectively closed the barrier beach through which the estuary flowed to the ocean. Once closed,



these “perched” lagoons achieve a static balance between river inflow and outflow through or over the barrier beach, enabling the flooded lagoon to slowly transform to a predominantly freshwater, highly productive environment for steelhead, salmon, and other native aquatic species. In contrast, past breaching efforts performed by SCWA, done largely to prevent flooding in the town of Jenner, consequently kept the estuary open to the ocean, precluding lagoon formation. The estuary management plan identified within the RPA and EIR will facilitate the formation of a perched lagoon at a water surface elevation below flood levels near Jenner, thus achieving the dual goals of improving estuary habitat and natural function while minimizing flood-related property damage.

NMFS appreciates the California State Lands Commission’s efforts in expediting permit issuance for this critical project. Please contact Mr. Rick Rogers at (707) 578-8552, or via e-mail at rick.rogers@noaa.gov, if you have any questions concerning this letter or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Dick Butler", with a long horizontal line extending to the right.

Dick Butler
North Central Coast Office Supervisor
Protected Resources Division