

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

RESPONSE TO WRITTEN COMMENTS FOR ITEM 7

March 9, 2011 Board Meeting

Adoption of Waste Discharge Requirements and Water Quality Certification for the San Francisco Public Utilities Commission, Calaveras Dam Replacement Project, Alameda and Santa Clara Counties

The Alameda Creek Alliance provided 6 comments, the Alameda County Water District (ACWD) provided 3 comments, and the San Francisco Public Utilities Commission (SFPUC) provided 5 comments. Responses to these comments are provided below.

Alameda Creek Alliance Comments - February 9, 2011

Alameda Creek Alliance Comment 1: Adoption of Tentative Order

The Alameda Creek Alliance supports approval of the proposed waste discharge requirements and water quality certification for the SFPUC Calaveras Dam Replacement Project, as outlined in the Regional Board's tentative order of January 10.

Alameda Creek Alliance Comment 2: Stream Flow Requirements

We support the proposed water flow requirements from the rebuilt Calaveras Dam and the associated Alameda Diversion Dam and the proposed operations of these dams to benefit habitat for steelhead trout and other native cold-water fish in Alameda Creek and its tributaries. We believe the new operations regime for the SFPUC dams will significantly advance the restoration of steelhead trout to Alameda Creek...

Many of the project changes regarding stream flows and habitat mitigations were made by the SFPUC to comply with the Endangered Species Act, and are encapsulated in the final Environmental Impact Report for the project, Biological Opinions prepared for the federal Army Corps permit for the project, and the state permit from the Department of Fish and Game.

Alameda Creek Alliance Comment 3:

... we support the approach of the proposed compensatory mitigation and restoration requirements detailed in the tentative order and the associated long-term management plan.

Alameda Creek Alliance Comment 4: Turbidity

We appreciate the requirements proposed by the Regional Board to protect water quality from excessive turbidity due to construction activities...

Alameda Creek Alliance Comment 5: Mitigation and Long-Term Management

We appreciate ... the extensive success criteria and measurable objectives for reestablishing native wetland and riparian vegetation and controlling invasive plants and sedimentation. In particular, we support the prohibition on livestock grazing within riparian corridors unless it can be shown to be ecologically beneficial, and the requirement to submit a grazing management plan in that case.

Alameda Creek Alliance Comment 6: Water Rights

We support the registration of water rights for livestock ponds and limits on the maximum water diversions for the ponds.

Response to Alameda Creek Alliance Comments

We acknowledge and appreciate the support expressed by these comments.

ACWD Comments - February 9, 2011

ACWD Comment 1: Stormwater Retention System

The proposed storm water retention system described within SFPUC's final EIR [Environmental Impact Report] does not adequately protect ACWD's municipal source water.

Mitigation measure 5.7.1 as described on page 1-58 to 1-67 of the Executive Summary of the consolidated Final Environmental Impact Report for the CDRP [Calaveras Dam Replacement Project] outlines the Storm Water Pollution Prevention Plan (SWPPP) proposed by the SFPUC for the CDRP. Currently the SWPPP proposes to capture and treat all site runoff, drilling fluids, and discharge from dewatering activities within detention basins which are designed to retain and treat volumes of runoff that result from a precipitation event with a recurrence interval of 1 out of every 10 years. Given the critical importance of acceptable water quality within Alameda Creek for recharge of the Niles Cone groundwater basin, and subsequent delivery to ACWD's customers, ACWD believes the potential discharge of contaminants and sediments derived from construction of the CDRP on a 1 in 10 year recurrence interval does not ensure a high enough level of protection for a municipal water supply. Furthermore, mitigating the discharge of potentially hazardous chemicals and increased volumes of sediment after a runoff event occurs does not assure protection of ACWD's groundwater resources, as contaminant plumes and increased concentrations of harmful constituents will have already affected water quality of percolation water for the Niles Cone. Page 4.7-72 of the final EIR states that, "Construction related contaminants or sediments mobilized downstream of Calaveras Dam during storm events could be carried downstream and affect groundwater quality. The extent to which metals and construction-related contaminants could be mobilized and transported into groundwater is uncertain with available data." Given acknowledgement of the possible significant impacts and the importance of protecting source water quality, ACWD recommends SWPPP measures that are more protective than currently proposed, and that SFPUC commit to fully mitigating adverse impacts on water quality from an untreated discharge.

Response to ACWD Comment 1

We share ACWD's concern for maintaining surface and groundwater quality in the Alameda Creek Watershed. However, we have not revised the tentative order in response to this comment. Prior to implementing the Calaveras Dam Replacement Project (CDRP), the SFPUC is required to obtain coverage under the General NPDES Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAS000002). The Construction General Permit is the appropriate regulatory vehicle for ensuring that surface and groundwater quality in the Alameda Creek Watershed is maintained.

The Construction General Permit includes numeric effluent limits for turbidity and pH, requires best management practices (BMPs) to prevent discharges of pollutants, and prohibits discharges that will violate water quality standards, including Basin Plan Water Quality Objectives. The SFPUC is proposing to implement standard BMPs, such as erosion control blankets, fiber rolls, and hazardous material management measures, in addition to the active treatment system referred to in the comment above, to prevent discharges of pollutants. The Construction General Permit includes an exception to numeric effluent limits for active treatment systems when there is a 10-year or greater storm event based on best available technology. The Construction General Permit also includes an exception from numeric effluent limits for standard BMPs when there is a 5-year or greater storm event based on best available technology. Because we have determined that, by the SFPUC's compliance with the Construction General Permit and the other mitigation measures specified in the CDRP's EIR, the potentially significant impacts associated with the CDRP's construction activities will be mitigated to a less-than-significant level, requiring control measures more protective than those proposed is not necessary.

ACWD Comment 2: Mitigation for Permanent Impacts

Mitigation to compensate for permanent impacts associated with the CDRP should be implemented within areas that are directly impacted as a result of the project, or in areas that have direct hydrologic connection to impacted areas.

The current draft of the Waste Discharge Requirements and Water Quality Certification for SFPUC's CDRP outlines three mitigation areas that will be enhanced to offset significant impacts caused as a result of construction of the CDRP. These three areas are the San Antonio Mitigation Area, South Calaveras Mitigation Area, and the Sheep Camp Creek Mitigation Area. The geographic location of both the South Calaveras and the Sheep Camp Mitigation Areas allow enhancements in riparian function, water quality, and species habitat that protect and improve wetlands and waterways directly affected by completion of the CDRP. It is unclear how the San Antonio Mitigation Area would serve to improve or enhance any water quality, riparian, or wetland species concerns within a geographic location that is directly affected by the CDRP, given the site's location occupies tributaries that serve as inflow to SFPUC's San Antonio Reservoir.

Within the Executive Summary of the consolidated Final Environmental Impact Report for the CDRP, page 1-61 and 1-61a indicate that potential sites exist within the Sunol Valley which can serve as offsite mitigation for an untreated storm water release if one was to occur. The table also explains that potential mitigation sites also exist within the Arroyo de la Laguna watershed. Both general locations described as potential mitigation sites for an uncontrolled release of

construction area storm water runoff are either directly affected by the CDRP (Sunol Valley) or have a direct hydrologic connection to an affected area (Arroyo de la Laguna), and could be considered in lieu of the San Antonio Mitigation Area. Additionally, selection of a mitigation site within the lower Sunol Valley would have the benefit of utilizing water released from Calaveras Dam, and bypassed from the Alameda Creek Diversion Dam for creation and enhancement of new and existing wetland and riparian communities, and benefitting both aquatic and terrestrial species. A mitigation site located within the lower Sunol Valley could also serve to mitigate negative water quality impacts associated with possible storm water runoff during a runoff event instead of after, as is currently proposed within the CDRP final EIR.

Response to ACWD Comment 2

We appreciate ACWD's suggestions; however, we have determined that the mitigation package proposed by the SFPUC will adequately compensate for the creek, wetland, and pond functions, values, and services being permanently impacted by the CDRP for the reasons described below. As such, we have not revised the tentative order in response to this comment.

Sites along Arroyo de la Laguna were proposed as mitigation for impacts to waters of the U.S. and State. The resource agencies, however, did not think these sites would fully compensate for lost functions and values because mitigation at Arroyo de la Laguna would primarily be stream bank stabilization and would not address the root cause of the stream impairment (i.e., hydromodification caused by increased impervious surfaces in Livermore Valley). Although mitigation lower in Sunol Valley was not proposed, most of the potential mitigation sites known to Board staff in that vicinity would not provide enough acres and linear feet to compensate for permanent impacts to functions and values, such as providing suitable habitat for California tiger salamanders and red-legged frogs.

The San Antonio Mitigation Area is part of a 270-acre parcel of land that will be managed to provide ecological benefits in perpetuity. Despite being upstream of San Antonio Dam, it has a trout run that will benefit from stream restoration and enhancement activities and has a pond that will be preserved for California tiger salamander and red-legged frogs. In addition, the root cause of the degradation (overgrazing) is being addressed as part of the mitigation both in the short-term and the long-term. Lastly, the San Antonio Mitigation Area is not only in the same watershed as the CDRP, but is actually closer in proximity to the CDRP's impacts than Arroyo de la Laguna and lower Sunol Valley.

ACWD Comment 3: Downstream Flow Requirements

The Waste Discharge Requirements and Water Quality Certification for SFPUC's CDRP incorrectly characterize the downstream flow requirement for bypass flows from the Alameda Creek Diversion/Dam.

Page four of the tentative order describes the downstream flow requirement for the Alameda Creek Diversion Dam (ACDD) as being up to 10 cfs. Page 9-36 of the project variant document identifies the downstream flow requirement for ACDD that was negotiated with National Marine Fisheries and California Department of Fish and Game as being the first 30 cfs that flows in Alameda Creek above ACDD will be allowed to bypass the structure. The tentative order should be updated to reflect the correct bypass requirement.

Response to ACWD Comment 3

Thank you for bringing this to our attention; we revised the text as requested.

SFPUC Comments - February 9, 2011

SFPUC Comment 1: Native Wetland Vegetation Success Criteria

Provision 4(a) identifies the species that would be counted towards achievement of success criteria for native vegetation in seasonal and perennial wetlands that are restored, established, or enhanced as mitigation for the Project. The SFPUC proposes the following additions and edits to these lists to increase the range of natural variation that is anticipated:

- i. **Seasonal wetlands:** mugwort (*Artemisia douglasiana*); marsh baccharis (*Baccharis douglasii*); bristly sedge (*Carex comosa*), Santa Barbara sedge (*Carex barbarae*); eggbract sedge (*Carex ovalis*); small-bracted sedge (*Carex subbracteata*); bifid sedge (*Carex serratodens*); naked sedge (*Carex nudata*); tall flatsedge (*Cyperus eragrostis*); redroot flatsedge (*Cyperus erythrorhizos*); black flatsedge (*Cyperus niger*); blue-eyed grass (*Sisyrinchium bellum*), . tufted hairgrass (*Deschampsia cespitosa*); meadow barley (*Hordeum brachyantherum*); spikerush (*Eleocharis macrostachya*); horsetail (*Equisetum arvense*); red fescue (*Festuca rubra*); iris-leaved rush (*Juncus xiphioides*); Mexican rush (*Juncus mexicanus*); Baltic rush (*Juncus balticus*); toad rush (*Juncus bufonius*); Pacific rush (*Juncus effusus* var. *pacificus*); spreading rush (*Juncus patens*); brown-headed rush (*Juncus phaeocephalus*); creeping wildrye (*Leymus triticoides*); seep monkey flower (*Mimulus guttatus*); water parsley (*Oenanthe sarmentosa*); sandbar willow (*Salix exigua*); red willow (*Salix laevigata*); arroyo willow (*Salix lasiolepis*); and sour clover (*Trifolium fucatum*), California sycamore (*Platanus racemosa*), Mexican elderberry (*Sambucus mexicana*), California beeplant (*Scrophularia californica*), willowherb (*Epilobium ciliatum*) or any other facultative (FAC) or facultative wetland (FACW) plant species that is native to the region (Contra Costa, Alameda, Santa Clara Counties).*
- ii. **Perennial wetlands:** hardstem bulrush (*Scirpus acutus*); American bulrush (*Scirpus americanus*); California bulrush (*Scirpus californicus*); river bulrush (*Scirpus fluviatilis*); paniced bulrush (*Scirpus microcarpus*); narrowleaf cattail (*Typha angustifolia*); broadleaf cattail (*Typha latifolia*); southern cattail (*Typha domingensis*), bur reed (*Sparganium eurycarpum* ssp. *eurycarpum*), mannagrass (*Glyceria occidentalis*), coyotethistle (*Eryngium articulatum*), American speedwell (*Veronica americana*) and all species listed for seasonal wetlands above or any obligate (OBL) wetland plant that is native to the region (Contra Costa, Alameda, Santa Clara Counties).*

Response to SFPUC Comment 1

The majority of species listed in the comment are already specified in the tentative order. We revised the text to include the additional species listed. Facultative, facultative wet, and obligate

species not currently listed by name in the tentative order, however, must be native to Alameda or Santa Clara County and be approved by the Executive Officer.

SFPUC Comment 2: Grazing Implementation in Long-Term Management Plan

Provision 5 in the Tentative Order restricts future grazing options in riparian areas and requires the development of specific plans if grazing is proposed in the future. The SFPUC requests that this provision be modified to reflect a revision to the Long Term Management Plan that clarifies the future implementation of grazing in riparian and pond habitats. The SFPUC also requests the provision recognize the Long Term Management Plan is intended to guide management after year 10 (or end of performance period) and to guide monitoring and management of enhanced sites through years 1-10 (during performance period). Grazing is an integral part of the management needed for enhanced sites in order to meet success criteria for target species and reduction of non-native invasive plants as identified in Appendix A of the Long Term Management Plan. The revised section of the Long Term Management Plan below describes the conditions when grazing might be allowed and alternatives to grazing that would be considered before it is implemented in riparian habitats. The SFPUC requests that the RWQCB review and evaluate the new section and consider revisions to the provision that would allow implementation of the Long Term Management Plan as proposed.

The revised plan emphasizes that the decision to graze these areas would be based on input from the SFPUC biologists and the Area Manager. Several of the fields that are listed by the RWQCB as 'not to be grazed' are primarily enclosing ponds that are expected to be grazed in some capacity to meet species success criteria and long term objectives, as stated in the MMP and LTMP (South Calaveras Fields A and E, and Sheep Camp Creek Fields E and B, in part). Livestock use of ponds has been shown to benefit the California tiger salamander.

The following section has been added to the LTMP:

Use of livestock for management of fenced riparian and pond fields

Fencing will surround (primarily riparian) and for bisect several ponds and some areas planted with native vegetation in the HRP management units. Fencing will be installed to protect plantings from livestock damage and control access to achieve species-specific goals. Goat Rock Field A, portions of Sheep Camp Fields B and E, and South Calaveras Fields A and E are primarily enclosures for ponds that are either known to support or provide suitable breeding habitat for California red-legged frog and California tiger salamander.

Fencing will be used to control livestock access to the ponds. Livestock would be allowed in ponds to support California tiger salamander and California red-legged frog breeding and rearing habitat goals; e.g. maintaining appropriate emergent vegetation cover and egg attachment substrate and, reducing visibility and predation pressure. Livestock will be allowed access to ponds for short periods of time when emergent vegetation, which is most often cattails, reaches greater than 35 percent cover (approximate or cover determined through monitoring and best available scientific knowledge to be most conducive to breeding of California tiger Salamander and California red-legged frog, of a given pond). Livestock will also be used to maintain vegetation height around ponds conducive to movement of CTS and CRLF.

San Antonio Fields A, B and Sheep Camp Creek Fields E and B will be planted with native vegetation as part of the HRP. All trees planted in these areas will have protective sleeves or

cages, attached to t-stakes. Sheep Camp Creek Fields B and C also contain ponds. No livestock grazing will be used in these fields for at least the first three years after planting. After three years, the areas will be evaluated to determine if livestock grazing would be beneficial to the management of these areas. Livestock grazing may be desired to control weeds (such as some thistles and medusa head), reduce loading of fire fuels, or to reduce brush encroachment. However, alternative methods that could be used to achieve these goals will be considered before grazing an area (such as mechanical or chemical control of non-native invasive plants).

San Antonio Field B is an upland area that will be planted with oak savanna vegetation. All trees planted in these areas will have protective sleeves or cages, attached to t-stakes. Grazing will be excluded from this field for a minimum of three years after planting.

Careful consideration of the potential negative effects that could result from grazing of these sensitive areas will need to be weighed with the potential benefits of grazing. As with the riparian pastures, the use of grazing as a management tool in this area will be evaluated after three years. SFPUC biologists will work with the Area Manager to determine if grazing (and what methods, such as stocking rates and duration of grazing) is appropriate in these areas.

Chapter 5 of the revised Long Term Management Plan presents the methods that will be used to determine stocking rates and season of grazing for each field. Appropriate levels of residual dry matter (or other measure of biomass/forage) will be set based on ecological objectives and yearly conditions. Grazing will be used as a tool to meet ecological objectives such as enhancing habitat for plant and wildlife species, reduction of non-native invasive plants and reducing light flashy fuels where appropriate. This will be balanced with other ecological objectives such as minimizing erosion, ensuring protection of water quality, and encouraging recruitment of native vegetation. In addition, new water developments are proposed in the new riparian fields at Sheep Camp Creek (Field E) and San Antonio (Field E). Water developments at San Antonio include new troughs and tanks located in the uplands of Fields A and B. A new trough and new well are also proposed in the uplands of Sheep Camp Creek Field E. Proposed water developments will help to distribute cattle in the fields and reduce cattle loafing in the creeks. Finally, grazing in the riparian and pond fields would be implemented based on collaboration between the Area Manager and SFPUC biologists. A decision to graze these areas will be based on the goal of enhancing species habitat and meeting success criteria. Other methods to obtain the same species and/or habitat goals, such as mechanical or chemical control of non-native invasive weeds will be considered before grazing the riparian and ponds fields. The most effective, feasible method to achieve the habitat/species goals will be used. The manner of management of these areas will be based on the latest scientific research, as well as on the unique observed conditions at each location, and the results of monitoring data (for example: vegetation cover, RDM, woody plant recruitment, erosion and sediment monitoring data).

Response to SFPUC Comment 2

We agree that grazing in riparian areas and ponds will be necessary to meet long-term ecological objectives at the mitigation areas; however, most of the current degradation in the mitigation areas was caused by overgrazing. As a result, we will need to review and approve either revisions to grazing management measures in the long-term management plan or a grazing management plan. These grazing management plans may be included as a section in the revised long-term management plan. We revised the tentative order accordingly.

SFPUC Comment 3: Cover Criteria for Invasive Species

Provision 5 specifies the objective presented in the Long Term Management Plan for invasive plant cover in wetlands and riparian habitat shall be no greater than 120 percent of the invasive plant cover measured at the end of the mitigation performance period. The SFPUC also notes that aggressive invasive plant reduction is proposed for both established/reestablished sites and enhanced sites. The success criteria in established/reestablished sites states that absolute cover for invasive plants will not exceed 5 percent. In order to meet these success criteria the SFPUC will strive to reduce cover of invasive plants to less than five percent. Therefore a 20 percent increase would be approximately 1 percent or less absolute cover, which will be very difficult to detect with a reasonable level of effort. Therefore this would not be an appropriate indicator to trigger management action. Likewise the existing cover of invasive plant species in certain enhanced sites may already be quite low. The SFPUC requests that the RWQCB consider alternatives to this criterion that are effective for detecting important changes in invasive species presence. The SFPUC proposes this new objective for invasive plant species cover:

Maintain or decrease cover of target non-native invasive plants in wetland and riparian habitat relative to baseline conditions (i.e. conditions measured at end of performance period).

Response to SFPUC Comment 3

We agree. The objective was revised as follows:

“The measurable objective for invasive plant cover in wetlands and riparian habitat shall be to maintain or decrease the absolute cover of invasive wetland plants relative to the absolute cover of invasive plants measured at the end of the mitigation performance period.”

SFPUC Comment 4: Criteria for Evaluating Riparian Regeneration

Provision 5 specifies an objective for regeneration of woody riparian species. However, the specified rate of seedling establishment may be variable depending on the stage of riparian vegetation development (early succession versus late succession). Based on discussions with the RWQCB and CDFG, the following alternative objectives for riparian regeneration are suggested for consideration:

- A. Maintain or increase the overstory cover of woody riparian species, relative to baseline conditions.*
- B. Maintain or increase the understory cover of shrubs, seedlings, and saplings within riparian areas, relative to baseline conditions.*
- C. Maintain or increase the herbaceous understory cover within riparian areas relative to baseline conditions.*

These objectives would utilize cover to evaluate regeneration within riparian vegetation communities. We propose that monitoring cover within multiple vegetation layers within the riparian habitat would detect changes that will indicate whether regeneration is adequate.

Response to SFPUC Comment 4

We agree and revised the text as follows:

“The measurable objectives for regeneration of riparian species shall be to (1) maintain or increase the canopy cover of woody riparian species relative to the canopy cover measured at the end of the mitigation performance period; (2) maintain or increase the understory cover of woody riparian species relative to the understory cover of woody riparian species measured at the end of the mitigation performance period; and (3) maintain or increase the absolute cover of herbaceous plants relative to the absolute cover of herbaceous plants measured at the end of the mitigation performance period.”

SFPUC Comment 5: Findings

The SFPUC would like to correct the following details of the Findings in the Tentative Order:

- 1. Page 4, Findings Item #2 first partial paragraph - the new bypass tunnel at ACDD will convey up to 30 cubic feet per second as proposed in the July 2010 flow schedule.*
- 2. Page 4, Findings Item #2 first partial paragraph - The proposed project would include sluicing and mechanical repositioning.*
- 3. Page 8, Findings Item # 10 - EIR was certified on Jan 27, 2011*
- 4. Page 9, Findings Item # 10 5th bullet - Replace "impact areas" with "dewatered areas" for relocation of fish.*

Response to SFPUC Comment 5

We revised the text as requested.