

Neary Lagoon Vegetation Management
and
Sediment Removal Project

City of Santa Cruz
Santa Cruz, CA

Biological Assessment

Prepared for:

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Biological Assessment

Project Background

The Neary Lagoon Wildlife Preserve is a 44 acre open space managed by the City of Santa Cruz (City) located approximately one-half mile west-southwest of downtown Santa Cruz between Laurel and Bay Streets, and southeast of California Street. Approximately 75% of the preserve is dominated by riparian and freshwater marsh habitat. The remaining 25% is a mix of oak woodland, non-native grassland, developed parkland and landscape areas. The lagoon has approximately 15 acres of open-water and freshwater marsh habitat, depending on the annual level of vegetation management. Figure 1.

Management of the Preserve is guided by the **Neary Lagoon Management Plan (NLMP)**, which was completed in 1992 and was approved by the Santa Cruz City Council and the California Coastal Commission (CCC). The Plan fulfills the CCC conditions and requirements for preparing a management plan as specified in the 1975 Coastal Permit (P-1523) for constructing recreation improvements and the CCC directive contained in the 1989 coastal permit (3-89-54) and subsequent work program. The Plan also fulfills the City's General Plan and Local Coastal Program (LCP) policies and Zoning Ordinance requirements for preparation of the plan. The NLMP also serves: 1) as the basis future funding and budgeting requests for implementing elements of the management plan; and 2) to demonstrate that a viable ecosystem will be maintained at Neary Lagoon after the addition of the Wastewater Treatment Facility adjacent to the lagoon management area. Major features are shown in Figure 2.

The NLMP seeks to balance the issues of public access, water quality protection, flood control, and habitat integrity by setting forth basic goals and identifying critical projects and practices that support those goals. Within the bottomland marsh and open water habitat, the NLMP has the operational objectives of [1] achieving a 1:1 ratio of open water to marsh, [2] enhancing lagoon circulation to increase lagoon dissolved oxygen concentrations, limit algal growth, and enhance lagoon sediment transport efficiency; and [3] establishing lagoon water depths of at least four feet to discourage emergent vegetation re-growth.

Since the NLMP approval in 1992, the City has successfully undertaken several of the projects and programs identified in the Plan, including improved public access by expansion of the floating walkway and trail network in addition to the development of a regular large-scale vegetation management and removal program to maintain a balance of natural habitat types.

Vegetation Management

Vegetation management at Neary Lagoon is done to maintain and restore vegetative diversity that is representative of the natural plant communities and species found in the area. This clearing effort maintains open water and facilitates flow through the marsh, which minimizes flooding potential on abutting properties, allows for increased transport of suspended sediment through the lagoon during high flows and improves water quality through better circulation and natural flushing.

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vegetation re-growth. Vegetation management is typically conducted bi-annually, depending on tule/cattail growth rates and was done most recently under the California Department of Fish and Game Lake and Streambed Alteration (LSA) Agreement #1600-2008-0396-3.

The City of Santa Cruz contracts with a private contractor to remove emergent aquatic vegetation (primarily tule, cattail, and yellow iris). The primary piece of equipment used is known as an "Aquamog," which is a small barge mounted excavator with a clam bucket or tule rake attachment to pull up submerged aquatic vegetation. Other types of equipment may be proposed by contractors. Tule mowing above the water line may also be done in areas of active bank retreat to retain shoreline bank stability while reducing biomass and opening views.

A second "harvester" unit is sometimes used to float cut biomass to shore for stockpiling and drying. Both the aquamogs and harvesters are diesel paddle wheel driven shallow draw vessels that are transported to the site on trucks and placed in the lagoon by crane. Propeller-driven shallow draw barges may be used to transport pulled tules and cattails, as well.

Vegetation removed in this operation is ultimately transported off site for upland disposal.

Sedimentation Management

Sedimentation Management Plan:

Despite an active, permitted vegetation removal program in the last decade, reduced lagoon depth and the resulting rapid vegetation growth necessitated the development of the Lagoon-specific Sedimentation Management Plan or "SMP" (Balance Hydrologics, 2006). This study characterized lagoon water quality, quantified sedimentation rates and proposed suggested approaches to manage lagoon sedimentation and water quality degradation.

The principal conclusions of the SMP were:

- Lagoon open water conditions deteriorated significantly between 1994 and 2001 (relative to the period 1976 to 1994); coinciding with construction of the floating walkway connecting the northern and southern lagoon banks;
- Lagoon circulation between the upper and lower lagoon is impacted by the floating walkway, as evidenced by the accretionary wedge of sediment located immediately up-lagoon from the walkway. The existing floating walkway acts as a sediment trap and decreases the available lagoon cross-sectional flow area; and
- Historic sedimentation rates coupled with field measurements of suspended sediment transport indicate that roughly 80% of the incoming suspended sediment load (an estimated 175 tons in 2005) to Neary Lagoon is deposited in the lagoon. This translates to an approximate lagoon export efficiency of 20%.

Two of the SMP suggested approaches, which are 1) limited dredging in the main channel in the vicinity of the floating walkway and 2) temporary removal of the central floating walkway across the main channel during the winter season, have been carried forward by the City.

Ongoing Efforts:

Thus per the SMP, in order to prevent the lagoon from "filling up" and to help curtail tule proliferation in open water habitat, the City began dredging the lagoon bi-annually in 2008. Recognized benefits from removing sediment from the lagoon included:

- maintaining open water habitat,

- increased wet season flow rates through the main channels and the entire lagoon, resulting in less sediment deposition and improved scouring,
- improving lagoon circulation,
- increased dissolved oxygen levels due to increased water depths and lagoon circulation,
- maintaining sufficient lagoon depths for access by the tule and sediment removal equipment, and
- controlling tule growth (tules don't root in water depths greater than 4 feet).

In 2008, an initial dredging effort in the main lagoon channel was done bisecting the floating boardwalk. This effort resulted in an excavation of approximately 750 cubic yards of sediment, which was 240' in length by 10' wide, and approximately 7'-8' deep. This work was done under the California Department of Fish and Game Lake and Streambed Alteration (LSA) Agreement #2008-0279-3. The City also obtained a Local Coastal Permit for the work.

In 2010, after obtaining an amendment to the LSA Agreement and a new Local Coastal Permit (LCP), a second sediment removal effort was conducted in the shallowest, upstream reach of the lagoon in order to deepen this area. This was done because the area had become quite shallow and thus inaccessible to the vegetation (tule) removal equipment (aquamogs). During this effort, approximately 850 cubic yards of sediment were removed from an area approximately 500'-600' long, by 15-18' wide and 1-3' deep, that extended from downstream of the Laurel Creek outlet towards the main lagoon channel.

In 2012, under the amended LSA Agreement and 2010 LCP, the lower sections of the two main lagoon channels were dredged in addition to the area where these two channels merge adjacent to the fixed pedestrian bridge and work staging area. These three areas, which form a "U" shape, were done because they had become shallow enough to impede the aquamogs and scows' floatation and transport ability, particularly when the boats were loaded down with tules or sediment. Approximately 1,200 cubic yards of sediment were removed, to an average depth of 1.5', with most of the material consisting of very light alluvial mud.

In 2015, 2017 and 2019 sediment and vegetation removal efforts were continued under a new CDFW LSA (No. 1600-2014-0251-R3), a new RWQCB 401 WQ Certification (#34415WQ01), and the US Army Corps of Engineers Nation-Wide Permit 27, which is re-authorized every 2 years. The most recent maintenance operations were done under Local Coast Permit #CP14-0052.

The most recent CDFW LSA No. 1600-2014-0251-R3 that details the required conditions is attached as Appendix B.

Proposed Project

The City of Santa Cruz proposes to conduct regular vegetation management and sediment dredging at Neary Lagoon consistent with the **Neary Lagoon Management Plan (NLMP)**, which was completed in 1992 and was approved by the Santa Cruz City Council and the California Coastal Commission (CCC). Vegetation removal will continue to be conducted throughout Neary Lagoon, with locations to vary from year to year. The principle objectives are maintaining views of open water habitat from the boardwalks and pedestrian access-areas, widening the primary lagoon channels above the concrete weir, and maintaining the outflow channel upstream of the Neary Lagoon Pump

Station. Sediment removal will be conducted in areas of open water habitat, as needed, to increase depth and improve water flow and circulation.

Based on the location and scope of the proposed vegetation management and sediment removal program, the areas of concern for this biotic assessment are focused on the freshwater marsh, riparian and open water habitats of the lagoon. It is anticipated that between 1 to 3 acres of emergent marsh wetland habitat comprised primarily of tule and cattail will be impacted in each bi-annual clearing operation, depending on site conditions. Existing roadways and reserve paths will be used for hauling materials and all dewatering of sediment and vegetation will be done in developed upland areas adjacent Depot Park and the Santa Cruz Branch Rail Line with sediment BMPS in place.

Project Goals and Detailed Description

The proposed project is to conduct annual tule/cattail removal and sediment dredging in Neary Lagoon. These actions are taken to: 1) improve water circulation and flow rates; 2) improve water quality; 3) reduce the proliferation of vegetative (tule) growth; 4) improve habitat; 5) provide access for the tule removal equipment and 6) to prevent the lagoon from “filling” up. Depending upon the accumulation of sediment over the winter months and resulting lagoon depths, up to 2,000 cubic yards of sediment may be removed each year that dredging is conducted. Both vegetation removal and dredging may be conducted annually if necessary for the duration of (the California Department of Fish and Wildlife) all applicable permits.

The project goals are to improve water circulation and water quality conditions at Neary Lagoon by reducing lagoon sedimentation and to prevent the lagoon from “filling” up as discussed in the *Lagoon-Specific Sedimentation Management Plan*. The removal of sediment in shallow areas enhances lagoon circulation and improves flow rates, which in turn helps to improve dissolved oxygen levels. Increasing lagoon depths to greater than 3-4 feet curtails the spread of tules and cattails, which reduces the frequency of required vegetation clearing. In addition, sediment removal is critical to providing access for the Aquamog equipment which is barge-mounted and paddle wheel driven.

The 2006 *Lagoon-Specific Sedimentation Management Plan* by Balance Hydrologics concluded that if the City did not take regular measures to remove sediment from the lagoon and control sedimentation rates, the lagoon would fill up in approximately twenty years.

The following sections provide details of the proposed vegetation management and sediment removal work. Photos of past operations are included in Appendix A.

Vegetation Management/Tule Removal

As part of the Neary Lagoon management activities, the City of Santa Cruz proposes to continue regular removal of emergent aquatic vegetation (primarily tule, bulrush, cattail, broad-fruited burreed and yellow iris). This clearing effort maintains open water and facilitates flow through the marsh, minimizing flooding potential on abutting properties. The goal of tule removal is to achieve a 1:1 ratio of open water to marsh, as directed by the NLMP. Typically the vegetation clearing effort results in 1 to 3 acres of tule marsh conversion to open water habitat.

Sediment Removal

Quantity, Frequency and Location:

The proposed sediment removal component consists of removal of up to 2,000 cubic yards of sediment annually. However, the City may not necessarily conduct sediment removal each year. The City may elect to continue to conduct sediment removal on a bi-annual basis concurrent with the tule removal work, as done in the past in order to minimize impacts to the lagoon and pedestrian use.

Sediment removal locations within Neary Lagoon will vary from year to year and, in general, will be determined by annual depth surveys. Sediment removal locations will also be prioritized based on providing access for the tule and sediment removal equipment. Other factors, such as improving lagoon flow and circulation, impeding tule growth, and general environmental conditions will be considered. Sediment removal will be done in areas of open water habitat. In addition to the lagoon channels, sediment removal may also be done at the top end of the lagoon near the Laurel Creek outlet and at the lower end of the lagoon, in the channel below the weir. In addition, sediment removal may be done in constricted areas or “pockets” of the lagoon as needed to increase depth and improve water flow and circulation.

The dredging will likely be done with specialized “Aquamog” equipment that has been used for tule and sediment removal in the past. However, the type of equipment may vary according to the vendor selected to conduct the tule and sediment removal work.

Dredging Depths:

The dredging depths will vary dependent upon the location. Staff has learned over the past 10 years that, especially in some areas of the lagoon, it may be preferable to do longer, wider cuts with excavations up to 4-5 feet deep. This allows more area of the lagoon to be deepened while a 4-5 foot water depth is sufficient to curtail the spread of tules. In other areas or years, it may be preferable to do a wide excavation to a lesser depth (such as to 3-4 feet) in order to remove sediment and provide equipment access.

Dredging Methods and Equipment:

Currently, the preferred method for sediment removal is to use a specialized piece of equipment called an “Aquamog” with a “clambucket” attachment. The Aquamog, with this attachment, has been working in the lagoon effectively over the past 20 years. The Aquamog is preferable partially due to access/egress issues, and because essentially the same equipment can be used for both sediment and vegetation (tule) removal. However, other types of equipment may be used depending upon the vendor selected for the work.

It is likely that one or more 12-cubic yard scows will be used to move excavation spoils to the staging/offloading area between the concrete bridge and the large vehicle access doors to the City’s Wastewater Treatment Facility, where annual vegetation removal activities are also staged. This requires the use of a push boat, as opposed to the vegetation harvesters that are employed to shuttle cut tule and cattail to the dewatering area and off-haul landing. It is possible that, depending upon the contractor hired for the work, that somewhat different equipment may be used in the future however it is not possible to predict this at this time. Dewatering of the excavated sediment and transport to off-site disposal is described below.

Work Staging Area:

The work staging area will be immediately adjacent to the Wastewater Treatment Facility, through which all project-related equipment and vehicle traffic will travel. All work areas (with the exception

of sediment and tule dewatering) and lagoon access routes are limited to the City's property. The sediment will be loaded on to trucks either for temporary dewatering at another site or for direct transport to a landfill (or other approved site) for disposal.

Sediment Dewatering

Sediment will be offloaded at the staging area adjacent to the Wastewater Treatment Facility as mentioned above. Sediment will be transferred to trucks for hauling offsite, either for disposal or to a temporary dewatering location. This vehicle traffic will access the offloading area by traveling through the Wastewater Treatment Facility (WWTF) and entering the lagoon preserve through the "King Kong" doors. Sediment may be placed on a scow in the water at the offload area while waiting for transfer into a truck for hauling.

The sediment may be transferred to trucks and directly hauled to a disposal site if the excavated material is dense and can pass the "dry weight" test. This will probably vary from year to year depending upon the location and depth to which is dredging is done. Sediment containing equal to or greater than 50% water will likely need to be dewatered prior to disposal. The preferred dewatering location is the nearby railroad "wye" property owned by Santa Cruz County Regional Transportation Commission (SCCRTC). Figure 4. Prior to the project, the City would obtain permission from the SCCRTC for this use. Other permitted or approved sites may be used if preferable or if the SCCRTC property is not available.

Sediment Sampling

Prior to conducting the sediment removal operations, sampling of the planned dredge areas will be conducted to assess the pollutant levels in the sediment. The intent is to take enough samples to get a consistent material make up and cross section of any potential pollutants. For example, in previous years, six to eight samples were taken, to a depth of about 4,' along a transect of the planned dredge area. The samples were then sent to a certified laboratory for analyses. In the past sample analyses included the following testing parameters which will also likely be done for this project:

CAM 17 metals; Pesticides 8081; THP diesel; Motor oil, & THP gas

Additional sampling of the actual dredged sediment will most likely be conducted as well because this is a typical requirement of disposal sites prior to granting permission to dispose of the sediment (for example, at the Marina landfill).

Sediment Disposal: Offsite Disposal

The dredged sediment material will be disposed of off-site by trucks appropriate for hauling wet or dewatered materials. The likely disposal site is the City of Santa Cruz Resource Recovery Facility or another landfill within a reasonable distance for hauling. Disposal at other legal sites will also be investigated and may be used if possible. The potential alternatives for disposal of the removed sediment are described below:

1) Disposal at the City of Santa Cruz Resource Recovery Facility (landfill): The City landfill will not accept wet material, so the sediment would need to be dewatered first. However, the landfill may accept excavated sediments as clean soil for cover provided the material is suitable, the pollutant levels are low enough, and permission is granted from the RWQCB and CalRecycle. Pollutant analyses may be required prior to acceptance of this material.

2) Disposal at the Marina Landfill: Wet or dewatered sediment material may be disposed of at the Marina landfill. If dewatered to less than 50% liquids, the Marina landfill will accept the waste as non-hazardous “marginal landfill cover” provided it meets the “soil acceptance criteria” and has advanced approval from the facility. It is also likely that the Marina landfill will accept the wet material as non-hazardous “liquid wastes” as provided that it meets the “soil acceptance criteria” and has advance approval from the facility. The material must be delivered to Marina landfill in dump trucks or end-dump trailers. Pollutant analyses of the dredged sediment, landfill approval, and advance disposal arrangements are required.

3) Disposal at Another Permitted Landfill: Wet or dewatered material may be disposed of at another permitted landfill within a reasonable distance from Neary Lagoon. Potential landfills include those in the South Bay area, Half Moon Bay, etc. Testing of the dredged sediment, landfill approval, and advance disposal arrangements are likely to be required prior to acceptance of this material.

4) Disposal at a Restoration Site: A potential alternative to landfill disposal is transport and donation of the removed sediment to a nearby restoration project or site needing clean sediment (as fill, cover, or for other restoration needs) if the timing and conditions are right.

5) Disposal at a Composting or Bio-Solids Processing Facility: Another potential alternative that the City will investigate is the possibility of disposing of the sediment at a composting or bio-solids processing facility, similar to where the sludge from wastewater treatment plants is often processed. This option may be used if legal, acceptable, and feasible.

6) Other Legal Disposal Location: The City will investigate other legal disposal locations as a potential alternative. This option may be used if acceptable, and feasible.

Project Schedule

The project's proposed timeframe is from Summer/Fall 2021 through Summer/Fall of 2025. The proposed schedule for operations extends from August 1 through October 15 each year. The extent and location of vegetation work varies from year to year. Typically the vegetation management tasks take 3-6 weeks and the work is done in August-September.

The proximity of the active sediment removal area to the unloading/staging area is a major factor in the amount of the time the dredging work takes. For example, sediment removal efforts occurring in the top end of the lagoon can take twice as long to complete as removal of the same amount of sediment from the lower channels due to the time it takes for the Aquamogs and scows to navigate up and down the lagoon. However, the proposed timing of sediment removal will be coordinated with the annual vegetation removal efforts to minimize construction impacts to the marsh and the neighborhood.

Permits for the Proposed Project

The City anticipates obtaining and maintaining permits for the proposed work from local, state and federal agencies including the following: 1) a Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife and 2) a Local Coastal Permit from the City of Santa Cruz (amendable by the CA Coastal Commission). The City will also obtain a CWA Section 404 Wetland Permits from the US Army Corps of Engineers and a CWA Section 401 WQ Certification from the Central Coast Regional Water Quality Control Board.

The proposed project will undergo CEQA review as has been done previously. The development of a CEQA Initial Study will be undertaken and a Mitigated Negative Declaration is anticipated, based on previous CEQA analyses for past sediment removal activities.

Environmental Setting

Neary Lagoon is a freshwater marsh and riparian system that has formed in a prehistoric oxbow of the San Lorenzo River within the 100 year flood plain, although it is now cut off from the river by urban development and flood control levees. Water depths in the lagoon vary with location and range from roughly 1.0 to 3.0 feet (when lagoon water level is roughly 5.5 feet amsl). Upland habitats in the vicinity of the project are predominantly oak woodland, annual grasses, developed parkland and landscaped residential properties.

The Neary Lagoon Preserve is approximately 44 acres in total and supports a diverse assemblage of wetland and riparian wildlife, most notably small but persistent populations of western pond turtle (*Emys marmorata*) and wood duck (*Aix sponsa*). With its complex of wetland, open water and riparian thickets, Neary Lagoon is best known for its native bird habitat. The aquatic habitat of Neary Lagoon, however, is dominated by introduced warm water fish species and non-native bullfrogs.

The lagoon has approximately 15 acres of open-water and freshwater marsh habitat, depending on the annual level of vegetation management. Marsh vegetation is primarily tule (*Scirpus californicus*), cattail (*Typha latifolia* and *T. angustifolia*) and yellow iris (*Iris pseudacorus*). Willow riparian woodland (*Salix lasiolepis*, *S. lasiandra* and *S. laevigata*) occupies approximately 16 acres of the preserve. Other notable riparian tree species present are sycamore (*Platanus racemosa*), box elder (*Acer negundo*), black cottonwood (*Populus trichocarpa*) and green wattle acacia (*Acacia longifolia* sp.). Understory vegetation in the riparian thickets are predominantly coastal shrubs like California blackberry (*Rubus ursinus*), Himalaya blackberry (*Rubus discolor*), stinging nettle (*Urtica dioica*), and poison oak (*Toxicodendron diversilobum*). Ruderal vegetation and non-native annual grasses occupy approximately 3 acres. Mixed oak woodland (*Quercus californicus*) comprises about 1 acre on the slopes above Laurel Creek. The remaining acreage is a mix of developed park facilities, pathways, and turf grasses.

The Neary Lagoon watershed is highly urbanized within the City of Santa Cruz with a drainage area of 1.27 square miles. The watershed can be broken into three sub-watersheds: the Bay Creek, Laurel Creek and Chestnut sub-basins. Sub-basin boundaries are generally defined by the City's storm-drainage network. Laurel Creek is the largest of the three sub-basins with a watershed area of just under 0.60 square miles. The Bay Creek sub-basin measures 0.39 square miles while the Chestnut sub-basin measures 0.29 square miles. Laurel Creek discharges to the northwest corner of Neary Lagoon at the Cypress Point/Shelter Cove Apartments. Bay Creek discharges to the southwest corner of Neary Lagoon below the upper Park parking lot. Chestnut discharges to Neary Lagoon via a 66-inch storm drain which is located downstream of the lagoon's concrete weir and just upstream of the railway crossing.

From the upper lagoon area, the lagoon is drained by two main vegetation-lined channels, which converge to a single channel at the concrete footbridge crossing. Downstream of the concrete bridge, Neary Lagoon is confined to a single channel that flows over a concrete weir and then passes through two 72" culverts under the Southern Pacific Rail Road grade (now owned by the Santa Cruz Regional

Transportation Commission). Beyond the confines of the preserve, the lagoon drains via a pump station to Cowell Beach next to the Municipal Wharf, approximately 0.25 miles downstream of the concrete weir. The pump station features one 66-inch reinforced concrete gravity flow main and one 66-inch low-pressure force main operated by a pump station with pumping capacity of 150 cfs (provided by two 120 hp pumps). Pump station operations are done on an as-needed basis for flood control and all discharges at Cowell Beach are reported to the Central Coast Regional Water Quality Control Board annually (C. Cave, Pers. communications).

Typically, the gravity flow main and force main are closed during the dry season (typically April 1–October 31), and the lagoon is drained by a 12-inch gravity flow line to the WWTF. This enables the City to divert the lagoon water for treatment prior to discharge to the Pacific Ocean. Occasionally, flow is also diverted to the WWTF during periods of dry weather within the rainy season so that lagoon water levels may be dropped for flood protection and to reduce untreated discharges at Cowell Beach (S. Wolfman and C. Cave, Pers. communication).

The area directly affected by the proposed project is principally open water edged by emergent marsh habitat. These areas are regularly disturbed by permitted vegetation clearing operations. No riparian, oak woodland or other sensitive habitats will be impacted.

Because of its location and mix of habitats, Neary Lagoon is well regarded as a local birding hotspot. To date 225 bird species have been recorded at the Lagoon (Ebird, 2020). Table 1 lists wildlife species known to regularly occur at Neary Lagoon. Table 2 lists bird species observed at the site between 2002 and 2020 by KEC during vegetation removal efforts and field surveys. Because the regular vegetation clearing operations are done after the waterfowl and songbird nesting season, none of these bird species appears to be significantly adversely impacted by typical late summer/fall season vegetation removal operations.

Table 1. Fish and Wildlife Species observed at Neary LagoonReptiles

Western pond turtle	(<i>Actinemys marmorata</i>)
Red-eared slider	(<i>Trachemys scripta elegans</i>)
Southern alligator lizard	(<i>Elgaria multicarinata</i>)
Gopher snake	(<i>Pituophis catenifer catenifer</i>)
Western terrestrial garter snake	(<i>Thamnophis elegans</i>)
Santa Cruz aquatic garter snake	(<i>Thamnophis atratus atratus</i>)
Snapping turtle*	(<i>Chelydra serpentina</i>)

Amphibians

Bullfrog	(<i>Rana catesbeiana</i>)
California slender salamander	(<i>Batrachoseps attenuates</i>)
Pacific treefrog	(<i>Pseudacris regilla</i>)

Fish

Carp	(<i>Cyprinus carpio</i>).
Bluegill	(<i>Lepomis macrochirus</i>)
Green sunfish	(<i>Lepomis cyanellus</i>),
Largemouth bass	(<i>Lepomis macrochirus</i>)
Mosquitofish	(<i>Gambusia affinis</i>)
Threespine stickleback	(<i>Gasterosteus aculeatus</i>)
Brown bullhead	(<i>Ameiurus nebulosis</i>)
Prickly sculpin	(<i>Cottus asper</i>)
Rainbow trout**	(<i>Oncorhynchus mykiss</i>)
Sacramento sucker***	(<i>Catostomus occidentalis</i>)

Large Invertebrates

Louisiana swamp crayfish	(<i>Procambarus clarkia</i>)
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* Single 160 mm turtle trapped on 6/3/2009.

** Listed as present in Lagoon in 1992 Neary Lagoon Management Plan. One 140 mm rainbow trout/steelhead smolt was captured and relocated during KEC monitoring of railroad culvert slide gate installation, on 4/25/2014.

*** Listed in 1992 Neary Lagoon Management Plan.

Table 2. Bird species observed at Neary Lagoon during 2005-2019 KEC field surveys

Allen's Hummingbird	Lesser Goldfinch
Anna's Hummingbird	Lesser Yellowlegs
American Coot	Mallard
American Crow	Marsh Wren
American Goldfinch	Merlin
American Robin	Mourning Dove
Band-tailed Pigeon	Northern Flicker
Barn Swallow	Northern Rough-winged Swallow
Belted Kingfisher	Northern Mockingbird
Bewick's Wren	Northern Shoveler
Black Phoebe	Nuttall's Woodpecker
Black-crowned Night Heron	Orange-crowned Warbler
Black-headed Grosbeak	Osprey
Black Swift	Pacific-slope Flycatcher
Blue Grosbeak	Peregrine Falcon
Brewer's Blackbird	Pied-billed Grebe
Brown-headed Cowbird	Pintail
Bullock's Oriole	Purple Finch
Bushtit	Red-necked Phalarope
California Quail	Red-shouldered Hawk
California Thrasher	Red-tailed Hawk
California Towhee	Red-winged Blackbird
Canada Goose	Rock Pigeon
Cedar Waxwing	Rose-breasted Grosbeak
Chestnut-backed Chickadee	Ruby-crowned Kinglet
Cinnamon Teal	Ruddy Duck
Cliff Swallow	Rufous-sided Towhee
Common Moorhen	Say's Phoebe
Common Raven	Sharp-shinned Hawk
Common Yellowthroat	Song Sparrow
Cooper's Hawk	Sora
Double-crested Cormorant	Stellar's Jay
Downy Woodpecker	Spotted Sandpiper
European Starling	Spotted Towhee
Gadwall	Swainson's Thrush
Golden-crowned Sparrow	Tree Swallow
Great Blue Heron	Tricolored Blackbird
Great Egret	Turkey Vulture
Greater Yellowlegs	Violet-green Swallow
Greater White-fronted Goose	Virginia Rail (heard, not seen)
Green Heron	Warbling Vireo
Green-winged Teal	Western Scrub-Jay
Hermit Thrush	Western Wood-Pewee
Hooded Oriole	Wilson's Warbler
House Finch	White Pelican
House Sparrow	White-crowned Sparrow
Hutton's Vireo	Wood Duck
Kestrel	Wrentit
Killdeer	Yellow Warbler
Lawrence's Goldfinch	Yellow-rumped Warbler

Special Status Plant Species

No special status plant species have been previously recorded in the project site, either in the 1992 Neary Lagoon Management Plan or during the biotic assessments and project monitoring of previous vegetation maintenance actions. While three listed plant species (robust spineflower, Santa Cruz tarplant, and San Francisco popcornflower) are noted CNDDDB as present on the USGS Santa Cruz Quad, none are known to occur in the wetland or riparian plant communities on site.

Special Status Wildlife Species

Special status wildlife species known to occur within the project area include tricolored blackbird (*Agelaius tricolor*) and western pond turtle, which are California State Species of Special Concern. Due to its relatively high habitat value within the urban environment, 17 species of special status birds have the potential to be found at Neary Lagoon. These species are listed in Table 3. Due to the proposed timing of the work after the breeding season, significant adverse impacts to listed avian species are not anticipated.

California red-legged frog (*Rana aurora draytoni*) and tidewater goby (*Eucyclogobius newberryi*) are also California State Species of Special Concern have not been observed or recorded at the site, but are known to exist in the San Lorenzo watershed and in the North Coast drainages. Potential impacts to these species are considered less than significant.

Table 3. Special Status bird species that may occur or are known to occur at Neary Lagoon

Brown Creeper (ssp. <i>phillipsi</i>)	proposed CSSC (nesting)	rare to uncommon non-breeding visitor
Cooper's Hawk	CSSC (nesting)	non-breeding visitor September to April
Double-crested Cormorant	CSSC (nesting)	non-breeding visitor; occurs all seasons
Merlin	CSSC (wintering)	non-breeding visitor September to early May
Northern Harrier	CSSC (nesting)	non-breeding visitor in fall and winter
Olive-sided Flycatcher	proposed CSSC (nesting)	spring and fall migrant
Osprey	CSSC (nesting)	non-breeding visitor; occurs all seasons
Peregrine Falcon	SE	non-breeding visitor, mostly fall and winter
Sharp-shinned Hawk	CSSC (nesting)	non-breeding visitor September to April
Summer Tanager	CSSC (nesting)	very rare fall migrant; does not nest in region
Swainson's Thrush	proposed CSSC (nesting)	fairly common nesting species, and migrant
Tricolored Blackbird	CSSC (nesting)	occasional non-breeding visitor
Vaux's Swift	CSSC (nesting)	spring and fall migrant; no nesting habitat in project area
White-tailed Kite	DFG Fully Protected	non-breeding visitor, mostly fall and winter
Willow Flycatcher	SE	rare spring and fall migrant
Yellow Warbler	CSSC (nesting)	uncommon nesting species; spring and fall migrant
Yellow-breasted Chat	CSSC (nesting)	rare spring and fall migrant

Source: CDFG California Bird Species of Special Concern 2006

Tri-colored Blackbird. The tricolored blackbird (*Agelaius tricolor*) is a California state species of special concern that nests in freshwater marshes, stock ponds and areas of dense cattails, rushes and tules from April to mid-May. Tricolored blackbirds are regularly seen foraging in North Coast agricultural ponds and local coastal lagoons with abundant emergent marsh vegetation.

Annual tule removal takes place in late summer/early fall, after the tri-colored blackbird breeding season. The proposed sediment removal project will be done in concert with tule removal activities. Based on past experience and current operations, impacts to bird nesting and bird populations from the proposed sediment removal project are considered less than significant.

Steelhead/Rainbow trout.

Steelhead and rainbow trout are the same species (*Oncorhynchus mykiss*) with differing life histories. Steelhead are those *O. mykiss* that are anadromous, or ocean-dwelling, fish that return to coastal streams to spawn. Rainbow trout are those fish that remain in local stream and live their entire life cycle in fresh water. In the Coast Range, resident rainbow trout usually occur in hatchery-supplied, isolated lakes and ponds as well as upstream of migratory passage barriers like dams, waterfalls and pump stations.

According to the 1992 Neary Lagoon Management Plan, hatchery rainbow trout were planted in a privately-owned former "duck-pond" feature located adjacent to the Lagoon at the outlet of Bay Creek. The timber and earthen berm that separated the duck pond from the main body of Neary Lagoon breached in 2007 and Bay Creek now flows freely through an alluvial willow forest into the lagoon. In April 2014, one individual juvenile *O. mykiss* was found in the dewatered reach of the lower lagoon during the rail line crossing slide gate installation construction project.

Steelhead/rainbow trout typically inhabit perennial coastal streams and rivers with a gravel substrate for spawning and rearing. In California, juvenile steelhead generally live in fresh water for 1-3 years before departing for the ocean where they remain for 2-3 years before returning to the same stream to breed (Moyle, et al. 1995). Young fish that have physiologically transformed for ocean life ("smolts") typically migrate to the ocean from March to June. Scouring during the winter can negatively affect reproduction, although usually the same deep pools and undercut banks that protect young during the summer provide protection during flood events.

Spawning for steelhead/rainbow trout typically occurs in the upper reaches of accessible creeks on clean gravel that receives good flow. Rearing habitat appears limited by availability of food, cover (woody debris, undercut banks, surface turbulence, large rocks that are not embedded), and sufficient pool and riffle depth. The Central California coast population is recognized as a distinct Evolutionarily Significant Unit (ESU) by the National Marine Fisheries Service (NMFS), which regulates the fishery. The anadromous Central California coast steelhead ESU is listed as threatened by the federal government.

In 2015, KEC conducted a focused biological assessment that detailed potential steelhead habitat in the Neary Lagoon watershed. That report documented significant steelhead passage barriers throughout the lagoon system, including a pump station, 2 slide gates, and culverted storm drain systems on the tributary streams that flow into the lagoon. The limited area of available habitat and the urbanized nature of the contributing watershed substantially limits the potential for a viable *O. mykiss* population in the project area. The 2015 Annual Report Supplement is attached as Appendix C

Tidewater Goby. The tidewater goby (*Eucyclogobius newberryi*) is federally listed as endangered, and is a state species of special concern. The species is found primarily in waters of coastal lagoons, estuaries, and marshes. Tidewater goby is known to occur in the lagoon of San Lorenzo Lagoon, Lombardi Creek and Wilder Creek Lagoon. Tidewater goby has not been documented in Neary Lagoon.

California Red-legged Frog. The California red-legged frog is a federally listed threatened species, and is a California species of special concern. Historically, the California red-legged frog occurred from northern California to Baja California in Mexico and was found in the Sierra Nevada and Coast Ranges. Its current range is much reduced, and most remaining populations are found in central California along the coast from Marin County south to Ventura County.

The project vicinity is located within the range of the California red-legged frog, and the species may have historically occurred in the vicinity. California red-legged frogs have been observed on UCSC campus within 2 miles northwest of the project area, and Wilder Ranch State Park and north coast agricultural ponds, approximately 3 miles west. Based on previous field surveys and CNDDB records California red-legged frogs are not known to be present in the study area.

Western Pond Turtle. The City obtained CDFG Streambed Alteration Permit (Notification # 1600-2003-0226-3) and conducted vegetation removal operations under the conditions developed in the 2005 Neary Lagoon Turtle Management Plan. This plan was developed by Kittleson Environmental Consulting and Biosearch Associates and is based on a Memorandum of Understanding (MOU) between Biosearch Associates and CDFG that was developed in 2002. Principal CDFG permit conditions and consultant work tasks included (1) preconstruction trapping and temporary offsite containment for western pond turtles, (2) project-period turtle monitoring and trapping, (3) transport and return of captive western pond turtles to capture locations and (4) completion of a summary report.

Since 2002, a total of 15 individual adult western pond turtles have been captured, marked and documented at Neary Lagoon Wildlife Refuge. In 2015 one previously un-marked adult wpt was trapped and held while in 2017 two previously un-marked wpt were trapped and cared for during operations.

In 2019, the most recent year of sediment and vegetation removal, no western pond turtles were trapped and held, despite conducting 2 week-long trapping sessions. Prior to that last maintenance action two adult wpt were observed moving upland, out of the lagoon near Depot Park. One of those turtles was found badly injured and was taken to Native Animal Rescue by volunteers. That individual was healed and released at nearby Schwan Lagoon in Live Oak.

Since the spring of 2019, no wpt were observed at Neary Lagoon during sediment and vegetation removal project monitoring or subsequent bird surveys conducted by KEC. No wpt have been seen in 2020.

No juvenile western pond turtles have been captured at Neary Lagoon during the trapping efforts that have been done from 2002 to 2019, although photographs of a juvenile western pond turtle basking with an adult turtle was taken by local biologist Steve Gerow in June 2008. In those images, marked turtle WPT #807 (136 mm CL) is clearly identifiable, and provides visual scale.

Upland breeding activities by WPT have not been observed by KEC or Biosearch Associates during our field investigations. Upland breeding activities were, however, anecdotally reported to investigators in 2005, with a report that maintenance workers observed a female WPT attempting excavation along the gravel access road next to the WWTP. That turtle was flushed back to open water and was not observed again.

Upland breeding activity by red-eared sliders was observed during July 2009 on three occasions in July and August 2009 by KEC. In those instances adult sliders were observed moving steadily across upland grassy habitats, away from open water. In one case, park visitors informed KEC of a turtle

that was “lost” and had been placed by them back into open water. KEC later observed this large female adult slider in the same upland area.

Vegetation removal activities by Aquamog and the associated harvester vessel have been implicated in at least one turtle mortality since 2002. On 9/14/2004 Errol Griffin, a Santa Cruz City Department of Parks and Recreation employee, found a dead red-eared slider floating in main channel during Aquamog operations. The turtle was an unmarked, female with tissue damage on left side of head near mouth. It appeared bloated, possibly dead for a day at least. It was assumed to be hit by tule removal equipment.

Predation of turtles by raccoons has been observed by local docents and reported by Neary Lagoon maintenance staff. Raccoon activity throughout the refuge is observed daily during trapping and project monitoring efforts. Notably, raccoons are frequently observed swimming across open water channels to access the tule/cattail stands and island features on the refuge. Raccoon game trails, defecation piles and two adult red-eared slider carapaces on a raccoon game trail have been documented within the lagoon interior, throughout known WPT territory.

Discussion: Impacts and Mitigation Measures

The Project will temporarily impact freshwater marsh and open water habitat that historically supports western pond turtle, a California State Species of Special Concern. No listed plants are known to occur in the project area. Operations are proposed for late in summer and early fall, so disruption of bird breeding is not considered a significant impact.

Due to the relatively small scale and short duration of the project, both direct and indirect impacts to sensitive wetland and open water habitat are likely to be limited to (1) excavation and removal of accumulated sediments and marsh vegetation, (2) potential “take,” or mortality, of western pond turtle by heavy equipment used to remove and transport sediment and vegetation, and (3) sedimentation and turbidity releases caused by disturbance of accumulated sediments and existing aquatic vegetation.

Unlike most coastal lagoons, Neary Lagoon drains to the City of Santa Cruz Wastewater Treatment Facility for treatment during the dry season, from April 1-October 31. During the course of the proposed sediment removal activities, lagoon drainage will be treated prior to discharge to Monterey Bay via the City’s wastewater outfall. As a result, suggested avoidance and mitigation measures discussed below focus on the temporary construction disturbance to the wetland and open water habitats that support western pond turtle and other aquatic species.

Goals and objectives for the long term management of different habitat types in Neary Lagoon are described in the Neary Lagoon Management Plan developed by Jones and Stokes, Inc. in 1992. Natural plant succession following previous sediment and vegetation removal efforts using the Aquamog equipment has demonstrated that impacts associated with vegetation maintenance are temporary, with emergent marsh species re-colonizing the affected lagoon margins within a year.

Impact Criteria

The thresholds of significance guiding the evaluation of impacts are based on California Environmental Quality Act (CEQA). For this analysis, significant impacts are those that substantially affect either:

- A species (or its habitat) listed or proposed for listing by State or Federal governments as rare or endangered
[*Western pond turtle*]
- Breeding or nesting habitat for a State species of special concern or migratory birds
[*tricolored blackbird*]
- A plant considered rare
[*CNPS List 1B species – none identified on site*]
- A habitat regulated by State or Federal law
[*riparian woodland, freshwater marsh*]
- A habitat regulated by the California State Coastal Commission
[*riparian woodland, coastal review wetlands*]

- A habitat recognized as sensitive by City of Santa Cruz
[riparian woodland, freshwater marsh]
- A habitat recognized as sensitive by CDFG
[riparian woodland, freshwater marsh and habitats that support special status species]

Suggested General Avoidance and Mitigation Measures

- Implement “Best Management Practices” (BMPs) that require protection of surface waters during construction activities, including, but limited to the following measures:
 - Control of site runoff to prevent erosion and control sedimentation during operations. Therefore, silt-fencing shall be installed around dredge spoil dewatering areas. No erosion control blankets or other material that use nylon netting shall be used.
 - Equipment and materials shall be located in designated staging areas.
 - Fueling, cleaning, or maintenance of equipment shall be prohibited except in designated areas. As a precaution, require contractor to maintain adequate materials onsite for containment and clean-up of any spills.
 - Floating silt booms shall be installed to limit mobility of turbid water. Floating silt booms will be used to identify habitat areas to be avoided and will be configured to minimize the downstream flow of organic debris to the pump station, concrete weir and wastewater plant cross-connect culvert.
 - Ocean outfall pump station operations shall be ceased during sediment removal operations to prevent outflow from Neary Lagoon to Cowell Beach.
 - All turbid project-related discharges or seasonal storm runoff from Neary Lagoon during the sediment removal operations shall be routed through the wastewater treatment plant for treatment via the existing cross-connect culvert, which is located downstream of the concrete weir under the gravel access path.
- Conduct vegetation management and sediment dredge operations from 1 August to 15 October (typically outside of the main bird nesting season). Since some avian species may still nest through August, require that a pre-construction survey for special-status nesting avian species (and other species protected under the Migratory Bird Act) be conducted by a qualified biologist at least 7 days prior to the beginning of construction activities to assure that the project is not actively being used. If nesting birds are not found, no further action would be necessary. If a nesting special-status bird were found, construction within 100 feet of the nest site should be postponed until after the bird has fledged or consultation with the California Department of Fish and Game (CDFG) is conducted to determine alternative measures. Buffer zones for other nesting birds may be smaller if approved by CDFG.

Suggested Species-Specific Avoidance and Mitigation Measures

Western pond turtle. The western pond turtle (*Emys marmorata*) is a CA state species of special concern that inhabits freshwater marshes, stock ponds and slow moving rivers and streams. Pond turtles are known from Neary Lagoon, Wilder Ranch State Park and a reservoir on the GraniteRock Sand Plant in-holding at Wilder Ranch. Western pond turtles are periodically observed in the lower San Lorenzo River during biological monitoring within the San Lorenzo River Flood Control Channel

and in the duck pond at San Lorenzo Park (KEC, pers. obs. 2019).

Because the Neary Lagoon system is known to support an isolated population of western pond turtles, a state-listed Species of Special Concern, the City of Santa Cruz obtained a CDFW Streambed Alteration Permit (Notification # 1600-2003-0226-3) and developed the Neary Lagoon Turtle Management Plan (Kittleson Environmental Consulting and Biosearch Associates, 2005). These two documents define the current CDFW permit conditions and environmental protection measures for western pond turtles to be undertaken at Neary Lagoon by the City of Santa Cruz. Principal CDFW permit conditions and work tasks include (1) preconstruction trapping and temporary offsite relocation for Western Pond Turtles, (2) project-period turtle monitoring and trapping, and (3) transport and release of captive Western Pond Turtles.

The 2005 KEC Neary Lagoon Turtle Management Plan consists of five tasks, outlined below:

1. Worker Education Seminar

Prior to the onset of vegetation clearing activities, the project biologists will conduct a worker education program to familiarize the labor crew with the characteristics, life history and regulatory requirements associated with western pond turtles and other wildlife potentially impacted by vegetation removal activities in Neary Lagoon.

2. Pre-project Trapping and Relocation

Five to ten baited wire basket traps (non-collapsible, constructed from ½-inch hardware cloth that measures 24 inches long, 24 inches wide, and 9.5 inches tall with a funnel-shaped opening at one end) will be deployed that are designed to attract turtles with bait. They will be placed near the perimeter of the lagoon on the pond bottom with one end of the trap partially exposed to create an air space and tethered to shore. Floats are attached to the traps to ensure an air space if the traps are dislodged into deeper water. They will be set for five consecutive days prior to the onset of tule removal activities. Traps will be set by canoe and/or kayak as needed.

All turtles will be measured, permanently marked (by notching specific scutes to a depth of 2-3mm according to a standardized numbering pattern), sexed and transported out of the impact area by one of the authorized biologists.

If the native Western Pond Turtles are temporarily removed offsite for the project duration, they will be fed and cared for by one of the following options:

- A. Refugio de las Tortugas
Marney Stroud
979 Rosita Rd.
Del Rey Oaks, CA., 93940
- B. Kittleson Environmental Consulting
Gary Kittleson
3284 Malibu Drive
Santa Cruz, CA 95062
- C. Other CA F&W approved location

All non-native turtles will be measured, permanently marked, sexed and transported out of the impact area by one of the authorized biologists. To the extent possible, non-native turtles will be removed from the wild.

3. *Project Period Trapping and Relocation*

The project biologists will also set traps Sunday-Thursday afternoons during the work period in areas to be cleared of vegetation. Near the end of each work day, a project biologist will bait and reset each trap.

4. *Daily Monitoring During Vegetation Removal*

Project biologists will check traps each day by kayak and/or canoe and will contact project biologists to handle any turtles. Project biologists will monitor the late afternoon periods, searching for turtles in vegetation piles and open water by kayak and/or canoe. Traps will be baited and reset at the completion of each work day.

5. *Annual Report*

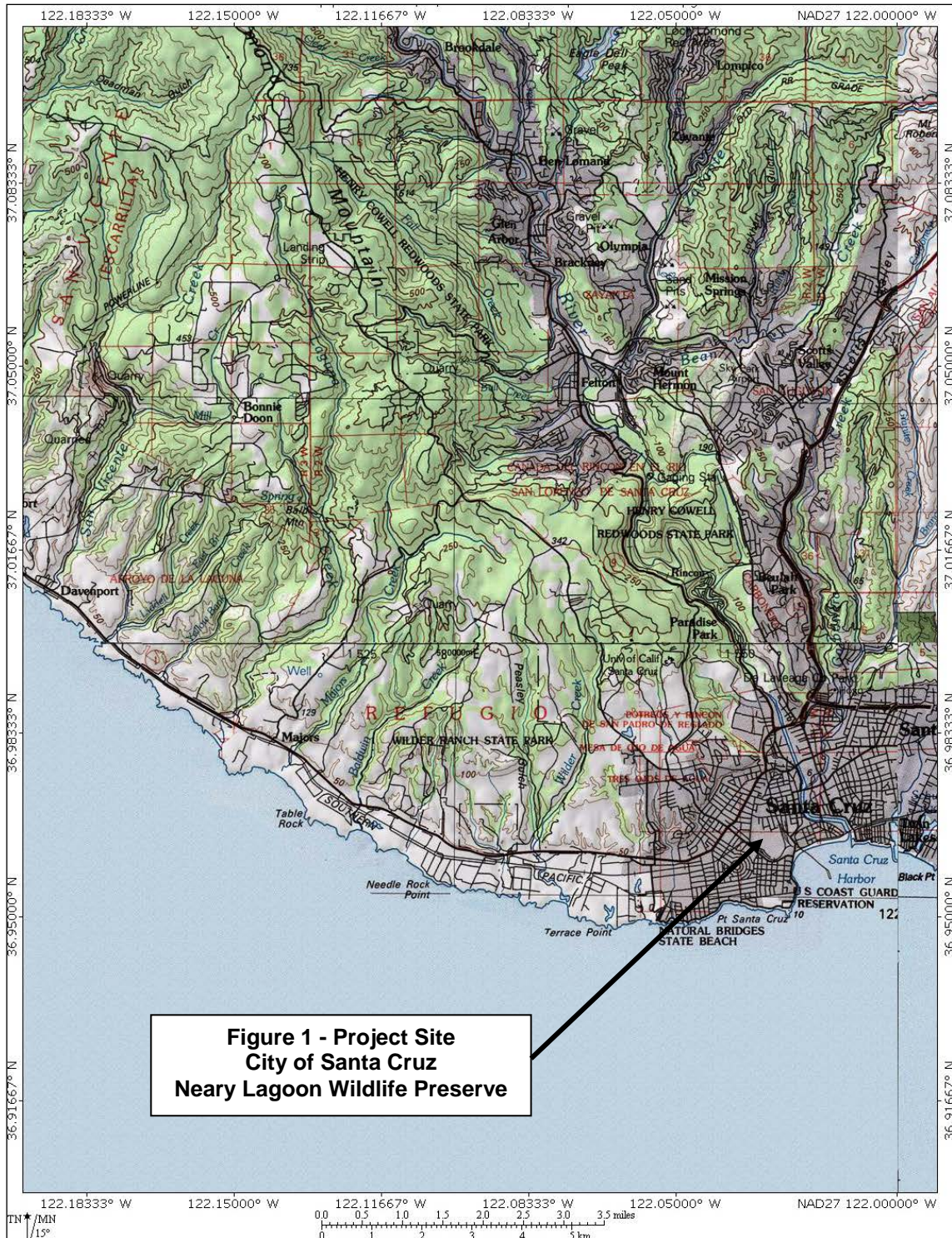
Following completion of the operations, the project biologists will compile trapping and daily monitoring data into a final summary report.

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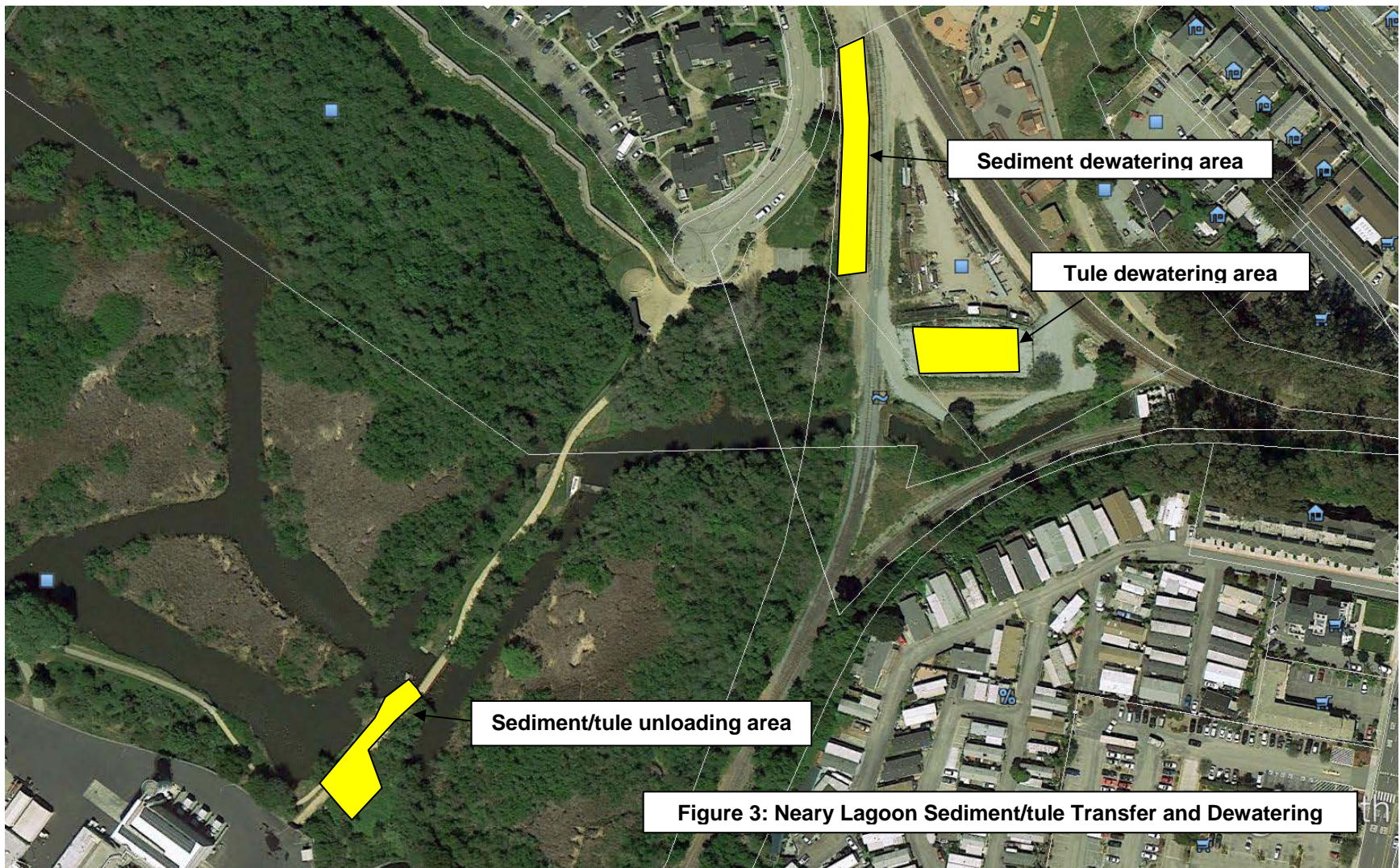
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Figures







Appendix A: Photos of the Site and Aquamog Operations



LEFT: Aquamog with clamshell and weed harvester in operation during tule removal.
RIGHT: Aquamog in upper lagoon.



LEFT: Off-loading location between concrete bridge and wastewater treatment plant.
RIGHT: Vegetation unloading.



LEFT: Off-loading dredge sediments directly to sealed truck.
RIGHT: Channel survey markers define sediment removal area.

Appendix B

CDFW LSA No. 1600-2014-0251-R3



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

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



SCANNED

March 12, 2015

Mark Dettle, Director
City of Santa Cruz Department of Public Works
809 Center Street, Room 201
Santa Cruz, CA 95060

Subject: Final Lake or Streambed Alteration Agreement
Notification No. 1600-2014-0251-R3
City of Santa Cruz Routine Maintenance Activities Project

Dear Mr. Dettle:

Enclosed is the final Streambed Alteration Agreement ("Agreement") for the City of Santa Cruz Routine Maintenance Activities Project ("Project"). Before the Department may issue an Agreement, it must comply with the California Environmental Quality Act ("CEQA"). In this case, the Department, acting as a responsible agency, filed a notice of determination ("NOD") on March 12, 2015 based on information contained in the Mitigated Negative Declaration the lead agency prepared for the Project.

Under CEQA, filing a NOD starts a 30-day period within which a party may challenge the filing agency's approval of the project. You may begin your project before the 30-day period expires if you have obtained all necessary local, state, and federal permits or other authorizations. However, if you elect to do so, it will be at your own risk.

If you have any questions regarding this matter, please contact Melissa Farinha, Environmental Scientist, at (707) 944-5579 or Melissa.Farinha@wildlife.ca.gov.

Sincerely,

Craig J. Weightman
Environmental Program Manager
Bay Delta Region

cc: Steve Wolfman – swolfman@cityofsantacruz.com
Lieutenant Schindler
Warden Preffer

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BAY DELTA REGION

7329 SILVERADO TRAIL

NAPA, CALIFORNIA 94558

(707) 944-5500

WWW.WILDLIFE.CA.GOV



STREAMBED ALTERATION AGREEMENT

NOTIFICATION NO. 1600-2014-0251-R3

NEARY LAGOON VEGETATION MANAGEMENT AND SEDIMENT REMOVAL PROJECT

NEARY LAGOON, TRIBUTARY TO PACIFIC OCEAN

SANTA CRUZ COUNTY, CA

MARK DETTLE

CITY OF SANTA CRUZ DEPARTMENT OF PUBLIC WORKS

809 CENTER STREET, ROOM 201

SANTA CRUZ, CA 95060

This Revised Lakebed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and City of Santa Cruz Department of Public Works (Permittee), as represented by Mark Dettle.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified CDFW on September 23, 2014 that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The project is located on Neary Lagoon, a perennial freshwater marsh, tributary to the Pacific Ocean, located one half-mile southwest of downtown Santa Cruz between Laurel and Bay Streets and southeast of California Street in the County of Santa Cruz, State of California; United States Geological Survey 7.5 Minute Quad Map Santa Cruz, Township 11S, Range 2W, Section 24; NAD 27 Zone 10 UTM Easting 586313,

Northing 4091054.

PROJECT DESCRIPTION

A. Under this Agreement, Permittee will conduct "routine maintenance activities", as described below, at Neary Lagoon. Coverage under this Agreement is extended to those activities that meet the following criteria:

1. Do not adversely impact a State or federally listed rare, threatened, endangered or candidate species or its habitat.
2. Are subject to the Agreement process contained in FGC sections 1600 *et seq.* For the terms of this Agreement, this includes any activities that occur in any stream or drainage, whether natural or man-made, which carries flow and supports aquatic life or which is a lake or pond that has an outlet or inlet of any size or nature. Vegetation, including, but not limited to, riparian and wetland, that originates within any of the areas defined here is also considered subject to FGC sections 1600 *et seq.*
3. Activities that can reasonably be considered "routine maintenance". Routine maintenance shall be defined as periodically scheduled and implemented activities that are necessary to maintain pedestrian access areas, the functional width and depth of primary lagoon channels above the concrete weir and maintenance of the outflow channel upstream of the Neary Lagoon Pump Station. Maintenance activities include, but are not necessarily limited to the following: activities such as sediment removal or vegetation control to correct conditions that threaten or degrade natural environments (such as non-native plant species control, removal of trash from channels or drainage and erosion repairs, and habitat enhancement). These activities are specifically defined in this Agreement under section B below.
4. Will not have an impact on fish or wildlife resources or the habitats that sustain them based on type of each activity, its location or duration. Examples of projects that would not be authorized under this Agreement include those that would disturb high-quality stream segments that support salmonid spawning.

B. Routine maintenance activities authorized under this Agreement are limited to the following category and activities are further described in Agreement Measures:

Maintenance of Vegetation, Debris and Sediment at Neary Lagoon: This activity involves the routine removal of vegetation, debris and sediment on an as-needed basis consistent with the *Neary Lagoon Management Plan*. Removal of sediment shall be limited to a maximum of 3,600 cubic yards per year. Removal of vegetation shall be limited to up to 4 acres per year consisting of tule, cattails

and yellow iris. Equipment to be used for this activity includes backhoe, excavator, dump trucks, Aquamog, harvester, 12 cubic yard scows and push boats with gas outboard motors.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include: Tricolored blackbird, listed as a candidate (currently under emergency listing as an endangered species) under the California Endangered Species Act; Pacific pond turtle, a designated State Species of Special Concern; breeding birds; fish, amphibians and other aquatic and terrestrial vertebrates and invertebrates.

The adverse effects the project could have on the fish or wildlife resources identified above without implementation of the Measures to Protect Fish and Wildlife Resources specified below, include: destruction of tricolored blackbird nests, eggs or juveniles; mortality and displacement of Pacific pond turtle; disruption to bird nesting activity, sub-adult bird rearing and disturbance or mortality of other wildlife from project activity.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.

- 1.4 Project Site Entry. Permittee agrees that CDFW personnel may enter the project site at any time to verify compliance with the Agreement.
- 1.5 Additional Measures. As a result of any field inspection, CDFW may require that additional measures be applied to specific activities to protect sensitive biological resources. Such measures may be amended into this Agreement by CDFW or if an exception to authorized activities is identified, Permittee may be asked to submit separate written notification to CDFW pursuant to Measure 1.7 below.
- 1.6 Authorized Routine Maintenance Activities. Only those activities specifically described in the Project Description shall be conducted under this Agreement.
- 1.7 Exceptions to Authorized Activities. Permittee shall submit separate written Notification for Lake or Streambed Alteration pursuant to Section 1602 of the FGC, together with the required fee prescribed in the CDFW Notification Fee Schedule, and otherwise follow the normal notification process prior to the commencement of work activities in all cases where one or more of the following conditions apply: i) the proposed work does not meet the criteria established for routine maintenance activities in the Project Description of this Agreement; ii) the nature of the proposed work is substantially modified from the work described in the Project Description of this Agreement; iii) CDFW advises Permittee that conditions affecting fish and wildlife resources have substantially changed at a specified work site or that such resources would be adversely affected by the proposed maintenance activity; and iv) the proposed work would adversely impact a State Species of Special Concern or State or federally listed rare, threatened, endangered or candidate species or its habitat.
- 1.8 Access to Property Not Owned by Permittee. This Agreement does not grant the Permittee authority to enter, use, or otherwise encroach upon on the property rights of individuals or organizations not party to this Agreement. Permittee shall obtain written authorization from outside parties, in accordance with applicable laws, if access to property not owned by Permittee is necessary.
- 1.9 Unauthorized Take. This Agreement does not authorize the take of any State or federal endangered or threatened species. Liability for any take or incidental take of such listed species remains the responsibility of Permittee for the duration of the Project. Any unauthorized take of such listed species may result in prosecution and nullification of the Agreement.
- 1.10 Qualified Biologist, Biological Monitor and Construction Monitor. A qualified fisheries biologist or qualified biologist is defined under this Agreement as

an individual who shall have a minimum of five years of academic training and professional experience in biological sciences and related resource management activities with a minimum of two years conducting surveys for each species that may be present within the project area. Under this Agreement, a biological monitor is an individual experienced with construction level biological monitoring and who is able to recognize species in the project area and who is familiar with the habits and behavior of those species. Biological monitors shall have academic and professional experience in biological sciences and related resource management activities as it pertains to this project. A construction monitor under this Agreement is an individual trained by the qualified biologist to identify special-status species which may be in the area, their general behavior, how they may be encountered in the work area, and procedures to follow when they are encountered and approved by CDFW. Within a minimum of seven (7) days prior to initiating fish and wildlife surveys within the project area, Permittee shall submit the names and resumes of all biologists, biological monitors and construction monitors involved in conducting survey and/or monitoring work to CDFW for review and written approval.

- 1.11 Notification of Project Commencement/Completion. Permittee shall notify CDFW Bay Delta Region within ten (10) calendar days prior to initiation and following completion of project activities with written notification or by an electronic notification addressed to Melissa.Farinha@wildlife.ca.gov.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

Construction Measures

- 2.1 Seasonal Work Period. Routine maintenance activities within Neary Lagoon marshland and associated riparian corridors shall be conducted after August 1 and before October 15. If Permittee needs more time to complete project activities, work may be authorized outside of the work period and extended on a day-to-day or week-by-week basis by CDFW representative, Melissa A. Farinha, or if unavailable, through contact with the CDFW Bay Delta Regional Office by mail, phone (707-944-5500) or fax (707-944-5553). Authorization shall be in the form of written communication.
- 2.2 Work Period in Dry Weather Only. Work within Neary Lagoon marsh and associated riparian corridors shall be restricted to periods of dry weather. Precipitation forecasts and potential increases of stream flow shall be considered when planning construction activities. Construction activities

shall cease, all equipment and materials shall be removed from the channel and all associated erosion control measures shall be in place at least 12 hours prior to the onset of precipitation. No work shall occur during a precipitation event. Construction activities halted due to precipitation may resume when precipitation ceases, the National Weather Service 72-hour weather forecast indicates a 30% or less chance of precipitation, and after a dry-out period of 48 hours for rain events. The National Weather Service forecast can be found at: <http://www.weather.gov>.

- 2.3 Storm Event Inspection. After any storm event, Permittee shall inspect all sites scheduled to begin or continue construction within the next 72 hours. Corrective action for erosion and sedimentation shall be taken as needed.
- 2.4 No Monofilament Netting. Permittee shall not use erosion control materials containing plastic monofilament netting (erosion control matting) or similar material containing netting within the project area due to documented evidence of amphibians and reptiles becoming entangled or trapped in such material. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.
- 2.5 No New Project Phase without Erosion Control. No phase of the project may be started if that phase and its associated erosion control measures cannot be completed prior to the onset of a storm event if that construction phase may cause the introduction of sediments into the stream. Erosion control measures shall be inspected frequently to minimize failure and conduct any necessary repairs. All non-structural related and non-biodegradable erosion control measures shall be removed from the project area upon cessation of construction activities.
- 2.6 Stabilize Exposed Areas. Permittee shall stabilize all exposed/disturbed areas within the project site to the greatest extent possible to reduce erosion potential, both during and following construction. Erosion control measures, such as, silt fences, straw hay bales, gravel or rock-lined ditches, water check bars, and broadcasted straw shall be used where ever silt-laden water has the potential to leave the work site and enter State waters. Erosion control measures shall be monitored during and after each storm event. Modifications, repairs and improvements to erosion control measures shall be made whenever they are needed.
- 2.7 Staging and Storage Areas. Construction equipment, building materials, fuels, lubricants and solvents shall not be stockpiled or stored where they could be washed into State waters or where they will cover aquatic or riparian vegetation.

- 2.8 Equipment over Drip Pans. Stationary equipment such as motors, pumps, generators, compressors and welders, located within or adjacent to the stream and riparian areas shall be positioned over drip-pans.
- 2.9 Check Equipment for Leaks. Any equipment or vehicles driven and/or operated adjacent to the stream and riparian corridor shall be checked and maintained daily to prevent leaks of materials that if introduced to water could be deleterious to aquatic life, wildlife or riparian habitat. Vehicles shall be moved away from the stream prior to refueling and lubrication.
- 2.10 Hazardous Materials. Any hazardous or toxic materials that could be deleterious to aquatic life that could be washed into State waters or their tributaries shall be contained in water tight containers or removed from the project site.
- 2.11 Imported Materials. Permittee shall not import, take from or move any rock, gravel, and/or other materials within the lagoon, its streambeds or banks except as otherwise addressed in this Agreement.
- 2.12 Debris and Waste Disposal. Permittee shall not dump any litter or construction debris within the project area. All such debris and waste shall be picked up daily and properly disposed of at an appropriate site. Upon completion of operations and/or onset of wet weather, all construction material and/or debris shall be removed from the Project work site to an area not subject to inundation. All removed vegetation and debris shall be disposed of according to State and local laws and ordinances.
- 2.13 Spoils. Permittee shall not place spoil where it could enter State waters or other sensitive habitat, such as riparian, or place over vegetation except as specifically noticed to and accepted by CDFW, in writing. Spoil shall be hauled offsite or stockpiled in an upland location where it shall be covered with plastic sheeting or visquine whenever it is evident that rainy conditions threaten to erode loose soils into sensitive habitats.
- 2.14 Vegetation Disturbance. No disturbance or removal of vegetation, other than that included in the Project Description or non-native, invasive plant species, such as, but not limited to, Scotch or French broom shall occur as a result of project activities. Vegetation outside the construction corridor shall not be removed or damaged without prior consultation and approval of CDFW. Vegetation may be disturbed only as specified in this measure.

Biological Measures

- 2.15 Special-Status Fish and Wildlife Surveys. Within 48 hours prior to each stage of the project, a qualified fisheries biologist or qualified biologist (see

Measure 1.10) shall survey the project area at the appropriate time of day for presence of special-status fish and wildlife species that may be present. Only the qualified fisheries biologist with the necessary agency permits and/or approvals may handle Pacific pond turtles. This Agreement does not authorize the take or disturbance of any species listed under the CESA. All wildlife species encountered during surveys shall be recorded. CDFW reserves the right to provide additional provisions to this Agreement designed to protect special-status species.

- 2.16 Bird Nest Surveys. If equipment staging, site preparation, grading, excavation or other Project-related construction activities are scheduled during the nesting season (February 1 through August 15) of protected raptors and other avian species, a focused survey for active nests of such birds shall be conducted by a qualified biologist within 5 days prior to the beginning of Project-related activities. Surveys shall be conducted in all suitable habitat located at Project work sites, in staging, storage and soil stockpile areas, and along transportation routes. The minimum survey radii surrounding the work area shall be the following: i) 250 feet for passerines; ii) 500 feet for small raptors such as accipiters; iii) 1,000 feet for larger raptors such as buteos. Surveys shall be conducted at the appropriate times of day, and during appropriate nesting times and shall concentrate on areas of suitable habitat. If a lapse in project-related activities of 15 days or longer occurs, another focused survey, and if required, consultation with CDFW and United States Fish and Wildlife Service will be required before Project activities can be reinitiated. If an active nest is found, Permittee shall consult with CDFW and USFWS regarding appropriate action to comply with the Fish and Game Code of California and the federal Migratory Bird Treaty Act (MBTA) of 1918. CDFW reserves the right to provide additional provisions to this Agreement designed to protect nesting birds.
- 2.17 Active Bird Nest Buffers. If an active nest is found during surveys, the active nest site shall be designated as "Ecologically Sensitive Areas" (ESA) and protected (while occupied) during project construction with the establishment of a flagged area surrounding the nest site. CDFW recommends that the minimum distances of the protective buffers surrounding each identified nest site be the following: i) 1,000 feet for large raptors such as buteos; ii) 500 feet for small raptors such as accipiters; iii) 250 feet for passerines. A qualified biologist shall monitor the behavior of the birds (adults and young, when present) at the nest site to ensure that they are not disturbed by Project-related activities. Nest monitoring shall continue during Project-related construction work until the young have fully fledged, are no longer being fed by the parents and have left the nest site, as determined by a qualified biologist.

- 2.18 Active Nests of Tri-colored Blackbirds (TRBL). Permittee shall avoid any disturbance to nesting tri-colored blackbirds. Permittee shall immediately consult with CDFW upon discovery of nesting by TRBL.
- 2.19 Harassment of Animals. No project personnel or motorized equipment shall harass, herd or drive any bird or mammal. Harass is defined as an intentional act which disrupts an animal's normal behavior patterns, which includes, but is not limited to, breeding, feeding or sheltering. Project personnel and equipment shall not cause displacement of waterbirds into roadways or open areas without cover from aerial predators. CDFW reserves the right to provide additional measures that shall be made part of this Agreement.
- 2.20 On-site Qualified Biologist, Biological Monitor or Construction Monitor with Stop Work Authorization. Permittee shall have the CDFW-approved qualified biologist, biological monitor or construction monitor onsite daily during project activity to minimize impacts to plant, fish, and wildlife habitat. Qualified biologists, biological monitors and construction monitors shall be authorized to stop construction if necessary to protect fish and wildlife resources. If there is a threat of harm to any sensitive species, or other wildlife, the qualified biologist, biological monitor or construction monitor shall halt construction and notify Melissa A. Farinha at (707) 944-5579 or electronic communication sent to Melissa.Farinha@wildlife.ca.gov. Consultation with CDFW is required before re-commencing work.
- 2.21 Wildlife Inspection Prior to Construction Activities Each Day. The qualified biologist, biological monitor shall inspect the work area and areas adjacent to the work area that will support motorized equipment prior to mobilization into the work site each day. If the monitor determines the work site does not support sensitive species, equipment may be moved onto the site under the observation of the monitor.
- 2.22 Training Session for Personnel. Prior to any project construction work, the qualified biologist shall provide a training session for all work personnel to identify special-status species which may be in the area, their general behavior, how they may be encountered in the work area, and procedures to follow when they are encountered. Interpretation shall be provided for non-English speaking workers. Any personnel joining the work crew later shall receive the same training before beginning work.
- 2.23 Disinfect Equipment Prior to Entry Into Watercourses. To prevent spread of invasive aquatics, any equipment to be used in watercourses including, but not limited to, boots, waders, hand tools and nets must be decontaminated using methodology in the CDFW Aquatic Invasive Species Decontamination

Protocol which can be found online at:

<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=43333>

- 2.24 Relocation of Native Fish and Native Amphibians. Prior to any project maintenance activities that require dewatering of any portion of Neary Lagoon, the CDFW-approved qualified biologist shall capture and relocate native fish, reptile and amphibian species to suitable habitat outside of the project work area. Measures shall be taken to avoid harm and mortality resulting from fish, reptile and amphibian relocation activities, as follows:
- 2.24.1 Relocated Fish Records. Relocated fish and amphibians shall be moved to the nearest appropriate site outside of the work area. A record shall be maintained of all relocated fish. The record shall include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the project site, and the number and species of fish captured and relocated. The record shall be provided to CDFW within two weeks of the completion of the work season or project, whichever comes first.
- 2.24.2 Release Locations Criteria. Prior to capturing fish, reptiles and amphibians, the most appropriate release location(s) shall be determined, using the following criteria: water temperature shall be similar as the capture location; there shall be ample habitat for the captured fish; relocation areas must be in proximity to the capture site, contain suitable habitat, not be affected by project activities, and be free of exotic predatory species (e.g., bullfrogs, crayfish) to the best of the qualified biologist's knowledge. There shall be a low likelihood for the relocated wildlife to re-enter the work site or become impinged on exclusion nets or screens.
- 2.25 Wet Hands and Nets. Handling of fish and amphibians within the project area shall be minimized. However, when handling is necessary, the qualified biologist shall always wet hands or nets prior to touching fish and amphibians.
- 2.26 Proper Holding Technique. The qualified biologist shall temporarily hold fish and amphibians in cool, shaded, aerated water in a flow-through live car. The qualified fisheries biologist shall protect fish and amphibians from jostling and noise and do not remove fish from this container until time of release.
- 2.27 Water Temperatures and Water Changes. The qualified fisheries biologist shall measure air and water temperatures periodically. A thermometer shall be placed in holding containers and, if necessary, periodically conduct partial water changes to maintain a stable water temperature. If water

temperature reaches or exceeds 18 °C, fish shall be released and rescue operations ceased.

- 2.28 No Overcrowding. Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year (YOY) fish and amphibians from larger age-classes to avoid predation. Larger amphibians, such as Pacific giant salamanders, shall be placed in the container with larger fish. If fish are abundant, the capturing of fish and amphibians shall cease periodically and shall be released at the predetermined locations.
- 2.29 Timing of Initial Fish Relocation. If feasible, the qualified biologist shall perform initial fish, reptile and amphibians relocation efforts several days prior to the start of construction. This provides the qualified biologist an opportunity to return to the work area and perform additional electrofishing passes immediately prior to construction.
- 2.30 Mortality Rate of Native Fish and Native Amphibians. If mortality during relocation exceeds five (5) percent, capturing efforts shall be stopped and Permittee shall immediately contact the appropriate agencies.
- 2.31 Relocate Native Fish and Native Amphibians during Cool Temperatures. The qualified biologist shall conduct relocation activities in the morning when the temperatures are cooler.
- 2.32 Non-native Fish, Reptiles and Amphibians. Permittee shall not reintroduce invasive fish and wildlife species into waters of the state.
- 2.33 Pacific Pond Turtle Trapping and Relocation. Trapping efforts for Pacific pond turtle (PPT) shall occur for five days immediately preceding vegetation removal activities. Ten baited wire basket traps will be deployed and checked daily. Traps shall be placed and tethered near the perimeter of the lagoon with one end of the trap partially exposed to create a breathing space. Floats shall be attached to the trap to ensure that a breathing space for turtles is retained if the trap becomes dislodged. All PPT will be measured, permanently marked, sexed and transported out of the project area for the duration of each project to be cared and fed for at a CDFW-approved location. Only the qualified biologist may trap and handle PPT.
- 2.34 PPT Inspection Each Day. The qualified biologist or biological monitor shall inspect the work area and upland areas adjacent to the work area that will support equipment and personnel prior to mobilization of equipment each day before project activity occurs. The qualified biologist or biological monitors will direct and inspect all vegetation and sediment removal and dewatering activities.

- 2.35 Cease Activities for PPT. If a PPT enters the work area, all work shall stop until the qualified biologist relocates the animal or it leaves on its own. Only the qualified biologist can handle and relocate PPT. Any sightings and/or injuries of this species shall be reported to CDFW within 24 hours per instructions below.

3. Monitoring and Reporting Measures

Permittee shall meet each reporting requirement described below.

- 3.1 Annual Notification of Routine Maintenance Activities. Permittee shall provide to CDFW Bay Delta Region written notification of proposed routine maintenance activities to be performed that year by May 1 of each year. The written notification of proposed routine maintenance activities shall describe the project location, length and width of impact area, square footage of areas of vegetation to be removed, resource avoidance measures, potential presence of sensitive species, and size or dimensions of culverts, rip rap, and other materials. Permittee shall be notified if notifications are deemed incomplete by CDFW. Each annual notification of proposed routine maintenance activities shall be added to this 1601 Agreement as Attachment C-Year (e.g. C-2003, C-2004, etc.).
- 3.2 Annual Notification of Completed Projects and Payment of Fees. Permittee shall provide to CDFW Bay Delta Region written notification by November 15 of routine maintenance projects completed within the year. Annual reports shall include for each project a list of all wildlife species encountered during surveys, photo documentation of each project that includes: a minimum of four (4) flagged vantage points (noting the vantage point in relation to the waterway in each photo) that offer representative views of each project site, revegetation zones and work area(s) with photos taken before, during and after project activities. Photo documentation need not be performed more than once in areas where no special status species have been observed in fish and wildlife surveys. Annual reports shall be submitted whether or not maintenance projects were conducted in that period. Applicable fees payable to the CDFW shall accompany each annual report. The fee amount shall be in accordance with the most recent fee schedule, as published by the CDFW for work performed under a Routine Maintenance Agreement based on the number of maintenance projects completed within each semiannual period. CDFW may terminate this Agreement immediately if reports and applicable fees are not submitted within 30 days of the due date.
- 3.3 Reconnaissance Level Surveys of the Watershed and/or Smolt Out-migrant Trapping. Permittee shall perform reconnaissance level surveys in 2015 to locate sites with potential *Oncorhynchus mykiss* or California red-legged. If sufficient surveying or sampling cannot be performed due to limited access

or other logistical issues, then Permittee shall conduct a one-time smolt out migrant trapping effort performed for one outmigration season by 2016. Results from reconnaissance level surveys shall be provided to CDFW by November 15, 2015, or for Smolt out-migrant trapping, by November 15, 2016,

- 3.4 Photographic Documentation of Work. Prior to commencement of work, Permittee shall flag a minimum of four (4) vantage points that offer representative views of each project site and work area. Permittee shall photograph the project area from each of the flagged points, (noting the vantage point in relation to the stream in each photo) before, during and after construction. Labeled digital copies of shall be sent to CDFW within 30 days project completion.
- 3.5 Special Status Wildlife Survey(s). Results from special-status fish and wildlife survey(s) shall be sent to CDFW within 30 days of project completion.
- 3.6 Capture and Relocation. A report of capture and relocation activities shall be provided to CDFW within 30 days after project completion. The report shall include: species encountered, capture methods; methods used for handling, stress minimization, equipment cleaning and disinfection; sizes of holding facilities; descriptions of relocation sites; and all instances of mortality and injury.
- 3.7 Notification to the California Natural Diversity Database (CNDDDB). If any listed, rare, or special status species are detected during project surveys or on or around the project site during project activities, Permittee shall submit CNDDDB Field Survey Forms to CDFW in the manner described at the CNDDDB website (<http://www.dfg.ca.gov/biogeodata/cnddb/>) within 30 days of the sightings. Copies of such submittals shall also be submitted to the CDFW regional office as specified below.

CONTACT INFORMATION

Any communication that Permittee or CDFW submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or CDFW specifies by written notice to the other.

To Permittee:

Mark Dettle
City of Santa Cruz Department of Public Works
809 Center Street
Santa Cruz, CA 95061
Phone (831) 420-5160

To CDFW:

California Department of Fish and Wildlife
Bay Delta Region
7329 Silverado Trail
Napa, California 94558
Attn: Lake and Streambed Alteration Program – Melissa A. Farinha
Notification #1600-2014-0251-R3
Fax (707) 944-5553
Melissa.Farinha@wildlife.ca.gov

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

SUSPENSION AND REVOCATION

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 et seq. (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

EXTENSIONS

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code, § 1605, subd. (f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at http://www.wildlife.ca.gov/habcon/ceqa/ceqa_changes.html.

TERM

This Agreement shall expire on December 31, 2019 unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with FGC section 1602.

CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

FOR CITY OF SANTA CRUZ DEPARTMENT OF PUBLIC WORKS

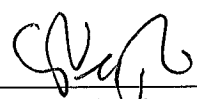


Mark Dettle
Director

2/25/15

Date

FOR DEPARTMENT OF FISH AND WILDLIFE



Craig Weightman
Environmental Program Manager

3/12/15

Date

Prepared by: Melissa A. Farinha
Environmental Scientist

Date Sent: October 20, 2014
Date Resubmitted: February 11, 2015
Date Resubmitted: February 20, 2015

FOR DEPARTMENT USE ONLY				
Date Received	Amount Received	Amount Due	Date Complete	Notification No.
6/27/14	\$ 1351.50	\$		1600-2014-0151-3



City of Santa Cruz

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE

Farina
Schindler
Forster



NOTIFICATION OF LAKE OR STREAMBED ALTERATION

Complete EACH field, unless otherwise indicated, following the enclosed instructions and submit ALL required enclosures. Attach additional pages, if necessary.

1. APPLICANT PROPOSING PROJECT

Name	Mark Dettle, Director			Fish & Wildlife
Business/Agency	City of Santa Cruz, Department of Public Works			
Street Address	809 Center Street, Room 201			JUN 27 2014
City, State, Zip	Santa Cruz, CA 95060			
Telephone	(831) 420-5160	Fax	(831) 420-5161	Napa
Email	mdettle@cityofsantacruz.com			

2. CONTACT PERSON (Complete only if different from applicant)

Name	Steve Wolfman		
Street Address	809 Center Street, Room 201		
City, State, Zip	Santa Cruz, CA 95060		
Telephone	(831) 420-5428	Fax	(831) 420-5161
Email	swolfman@cityofsantacruz.com		

3. PROPERTY OWNER (Complete only if different from applicant)

Name	City of Santa Cruz		
Street Address			
City, State, Zip			
Telephone		Fax	
Email			

4. PROJECT NAME AND AGREEMENT TERM

A. Project Name		Neary Lagoon Vegetation Management and Sediment Removal Project		
B. Agreement Term Requested		<input checked="" type="checkbox"/> Regular (5 years or less) <input type="checkbox"/> Long-term (greater than 5 years)		
C. Project Term		D. Seasonal Work Period		E. Number of Work Days
Beginning (year)	Ending (year)	Start Date (month/day)	End Date (month/day)	
2014	2018	8/1	10/31	
				90

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

5. AGREEMENT TYPE

Check the applicable box. If box B, C, D, or E is checked, complete the specified attachment.

A.	<input checked="" type="checkbox"/> Standard (Most construction projects, excluding the categories listed below)		
B.	<input type="checkbox"/> Gravel/Sand/Rock Extraction (Attachment A)	Mine I.D. Number: _____	
C.	<input type="checkbox"/> Timber Harvesting (Attachment B)	THP Number: _____	
D.	<input type="checkbox"/> Water Diversion/Extraction/Impoundment (Attachment C)	SWRCB Number: _____	
E.	<input type="checkbox"/> Routine Maintenance (Attachment D)		
F.	<input type="checkbox"/> CDFW Fisheries Restoration Grant Program (FRGP)	FRGP Contract Number _____	
G.	<input type="checkbox"/> Master		
H.	<input type="checkbox"/> Master Timber Harvesting		

6. FEES

Please see the current fee schedule to determine the appropriate notification fee. Itemize each project's estimated cost and corresponding fee. **Note: The Department may not process this notification until the correct fee has been received.**

	A. Project	B. Project Cost	C. Project Fee
1	Neary Lagoon Vegetation Management and Sediment Removal Project	180,000	\$1,351.50
2			
3			
4			
5			
		D. Base Fee (if applicable)	0
		E. TOTAL FEE ENCLOSED	\$1,351.50

7. PRIOR NOTIFICATION OR ORDER

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, the Department for the project described in this notification?

☒ Yes (Provide the information below) ☐ No

Applicant: City of Santa Cruz Notification Number: 1600-2008-0396-3 & 1600-2008-0279-3 Date: 2008

B. Is this notification being submitted in response to an order, notice, or other directive ("order") by a court or administrative agency (including the Department)?

☒ No ☐ Yes (Enclose a copy of the order, notice, or other directive. If the directive is not in writing, identify the person who directed the applicant to submit this notification and the agency he or she represents, and describe the circumstances relating to the order.)

☐ Continued on additional page(s)

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

8. PROJECT LOCATION

A. Address or description of project location. <i>(Include a map that marks the location of the project with a reference to the nearest city or town, and provide driving directions from a major road or highway)</i>				
Neary Lagoon is located approximately one-half mile southwest of downtown Santa Cruz between Laurel and Bay Streets and southeast of California Street (Figure 1) .				
<input type="checkbox"/> Continued on additional page(s)				
B. River, stream, or lake affected by the project.		Neary Lagoon		
C. What water body is the river, stream, or lake tributary to?		Monterey Bay, Pacific Ocean		
D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown		
E. County	Santa Cruz			
F. USGS 7.5 Minute Quad Map Name	G. Township	H. Range	I. Section	J. ¼ Section
Santa Cruz	11S	2W	24	
<input type="checkbox"/> Continued on additional page(s)				
K. Meridian (check one)		<input type="checkbox"/> Humboldt <input checked="" type="checkbox"/> Mt. Diablo <input type="checkbox"/> San Bernardino		
L. Assessor's Parcel Number(s)				
N/A				
<input type="checkbox"/> Continued on additional page(s)				
M. Coordinates (If available, provide at least latitude/longitude or UTM coordinates and check appropriate boxes)				
Latitude/Longitude	Latitude:		Longitude:	
	<input type="checkbox"/> Degrees/Minutes/Seconds		<input type="checkbox"/> Decimal Degrees <input type="checkbox"/> Decimal Minutes	
UTM	Easting:	Northing:	<input checked="" type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11	
Datum used for Latitude/Longitude or UTM		<input checked="" type="checkbox"/> NAD 27 <input type="checkbox"/> NAD 83 or WGS 84		

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

9. PROJECT CATEGORY AND WORK TYPE *(Check each box that applies)*

PROJECT CATEGORY	NEW CONSTRUCTION	REPLACE EXISTING STRUCTURE	REPAIR/MAINTAIN EXISTING STRUCTURE
Bank stabilization – bioengineering/recontouring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bank stabilization – rip-rap/retaining wall/gabion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boat dock/pier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boat ramp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bridge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Channel clearing/vegetation management	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Culvert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Debris basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diversion structure – weir or pump intake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Filling of wetland, river, stream, or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geotechnical survey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Habitat enhancement – revegetation/mitigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Levee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low water crossing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road/trail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment removal – pond, stream, or marina	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Storm drain outfall structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporary stream crossing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utility crossing : Horizontal Directional Drilling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jack/bore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open trench	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

10. PROJECT DESCRIPTION

A. Describe the project in detail. Photographs of the project location and immediate surrounding area should be included.

- Include any structures (e.g., rip-rap, culverts, or channel clearing) that will be placed, built, or completed in or near the stream, river, or lake.
- Specify the type and volume of materials that will be used.
- If water will be diverted or drafted, specify the purpose or use.

Enclose diagrams, drawings, plans, and/or maps that provide all of the following: site specific construction details; the dimensions of each structure and/or extent of each activity in the bed, channel, bank or floodplain; an overview of the entire project area (i.e., "bird's-eye view") showing the location of each structure and/or activity, significant area features, and where the equipment/machinery will enter and exit the project area.

The City of Santa Cruz proposes to conduct regular vegetation management and sediment dredging at Neary Lagoon consistent with the Neary Lagoon Management Plan (NLMP), which was completed in 1992 and approved by the Santa Cruz City Council and the California Coastal Commission (CCC). Vegetation removal will continue to be conducted throughout Neary Lagoon, with locations to vary from year to year. The principle vegetation management objectives are maintaining views of open water habitat from the floating boardwalks and pedestrian access-areas, widening the primary lagoon channels above the concrete weir, and maintaining the outflow channel upstream of the Neary Lagoon Pump Station. Sediment removal will be conducted in areas of open water habitat, as needed, to increase depth and improve water flow and circulation.

Vegetation removal will be done to achieve a 1:1 ratio of open water to marsh with locations and extent of work to vary annually, based on vegetation conditions and growth rates. In the past, between 1/2 to 2 acres of tules and cattail marsh habitat were removed per vegetation removal action resulting in off-haul of approximately 100 tons of organic material each time.

Depending upon the accumulation of sediment over the winter months and resulting lagoon depths, up to 3,600 cubic yards of sediment may be removed each year that dredging is conducted. Vegetation removal and/or dredging may be conducted annually if necessary.

See attached maps and photos.

☒ Continued on additional page(s)

B. Specify the equipment and machinery that will be used to complete the project.

Backhoe, excavator, dump trucks, Aquamog, harvester, 12 cubic yard scows and push boats with gas outboard motors.

☐ Continued on additional page(s)

C. Will water be present during the proposed work period (specified in box 4.D) in the stream, river, or lake (specified in box 8.B).

☒ Yes ☐ No (Skip to box 11)

D. Will the proposed project require work in the wetted portion of the channel?

☒ Yes (Enclose a plan to divert water around work site)
☐ No

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

11. PROJECT IMPACTS

A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.		
Removing emergent marsh vegetation and dredging bottom sediments from the bed of Neary Lagoon are the primary goals of the project. Dredging will occur in open water habitat with lagoon depths that range from 0.5'-3', depending on lagoon inflows, pump station operations, and seasonal diversions to the adjacent wastewater plant. Equipment will access through the City wastewater treatment plant.		
<input type="checkbox"/> Continued on additional page(s)		
B. Will the project affect any vegetation?		
<input checked="" type="checkbox"/> Yes (Complete the tables below) <input type="checkbox"/> No		
Vegetation Type	Temporary Impact	Permanent Impact
Cattail/tules	Linear feet: _____ Total area: 0.5-2.0 acres	Linear feet: _____ Total area: _____
	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: _____
Tree Species		
Number of Trees to be Removed		
Trunk Diameter (range)		
<input type="checkbox"/> Continued on additional page(s)		
C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site?		
<input checked="" type="checkbox"/> Yes (List each species and/or describe the habitat below) <input type="checkbox"/> No <input type="checkbox"/> Unknown		
Project area is Western Pond Turtle habitat. 11 adults have been documented in previous mark/recapture surveys.		
<input checked="" type="checkbox"/> Continued on additional page(s)		
D. Identify the source(s) of information that supports a "yes" or "no" answer above in Box 11.C.		
Kittleson Environmental Consulting Annual Western Pond Turtle Surveys, 2005, 2006, 2007, 2010		
<input type="checkbox"/> Continued on additional page(s)		
E. Has a biological study been completed for the project site?		
<input checked="" type="checkbox"/> Yes (Enclose the biological study) <input type="checkbox"/> No		
<i>Note: A biological assessment or study may be required to evaluate potential project impacts on biological resources.</i>		
F. Has a hydrological study been completed for the project or project site?		
<input checked="" type="checkbox"/> Yes (Enclose the hydrological study) <input type="checkbox"/> No		
<i>Note: A hydrological study or other information on site hydraulics (e.g., flows, channel characteristics, and/or flood recurrence intervals) may be required to evaluate potential project impacts on hydrology.</i>		

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

12. MEASURES TO PROTECT FISH, WILDLIFE, AND PLANT RESOURCES

A. Describe the techniques that will be used to prevent sediment from entering watercourses during and after construction.

Low flow seasonal outflow from the lagoon is passed through the City's wastewater treatment plant in order to minimize the discharge of lagoon water, potentially laden with bacteria, to Cowell Beach via the lagoon outfall structure.

During the proposed project activities, all Neary Lagoon outflow will be diverted to the wastewater treatment plant via existing infrastructure.

☐ Continued on additional page(s)

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

Because the Neary Lagoon system is known to support an isolated population of Western Pond Turtles, a state-listed Species of Special Concern, the City of Santa Cruz previously obtained a CDFG Streambed Alteration Permit (Notification # 1600-2003-0226-3) and developed the Neary Lagoon Turtle Management Plan (Kittleson Environmental Consulting and Biosearch Associates, 2005). See attached approach and methods description.

☒ Continued on additional page(s)

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

The provisions of the most recent California Department of Fish and Game Lake and Streambed Alteration Agreements (#1600-2008-0279/Sediment Removal), (#1600-2008-0396-3/Vegetation Management) and the approved Neary Lagoon Turtle Management Plan would be implemented. The Turtle Management Plan is designed to temporarily hold the listed species for the duration of the vegetation removal and dredging activity and then return them to the location where they were captured. The key Neary Lagoon Turtle Management Plan tasks are outlined in the attachment.

☒ Continued on additional page(s)

13. PERMITS

List any local, state, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

- A. City of Santa Cruz Local Coastal Permit ☒ Applied ☐ Issued
- B. _____ ☐ Applied ☐ Issued
- C. _____ ☐ Applied ☐ Issued
- D. Unknown whether ☐ local, ☐ state, or ☐ federal permit is needed for the project. (Check each box that applies)

☐ Continued on additional page(s)

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

14. ENVIRONMENTAL REVIEW

A. Has a draft or final document been prepared for the project pursuant to the California Environmental Quality Act (CEQA), National Environmental Protection Act (NEPA), California Endangered Species Act (CESA) and/or federal Endangered Species Act (ESA)?			
<input checked="" type="checkbox"/> Yes (Check the box for each CEQA, NEPA, CESA, and ESA document that has been prepared and enclose a copy of each) <input type="checkbox"/> No (Check the box for each CEQA, NEPA, CESA, and ESA document listed below that will be or is being prepared)			
<input type="checkbox"/> Notice of Exemption <input checked="" type="checkbox"/> Initial Study <input type="checkbox"/> Negative Declaration <input type="checkbox"/> THP/ NTMP	<input checked="" type="checkbox"/> Mitigated Negative Declaration <input type="checkbox"/> Environmental Impact Report <input checked="" type="checkbox"/> Notice of Determination (Enclose) <input type="checkbox"/> Mitigation, Monitoring, Reporting Plan	<input type="checkbox"/> NEPA document (type): _____ <input type="checkbox"/> CESA document (type): _____ <input type="checkbox"/> ESA document (type): _____	
B. State Clearinghouse Number (if applicable)			
C. Has a CEQA lead agency been determined?		<input checked="" type="checkbox"/> Yes (Complete boxes D, E, and F) <input type="checkbox"/> No (Skip to box 14.G)	
D. CEQA Lead Agency	City of Santa Cruz		
E. Contact Person	Mike Ferry	F. Telephone Number	831 420-5150
G. If the project described in this notification is part of a larger project or plan, briefly describe that larger project or plan.			
<input type="checkbox"/> Continued on additional page(s)			
H. Has an environmental filing fee (Fish and Game Code section 711.4) been paid?			
<input type="checkbox"/> Yes (Enclose proof of payment) <input checked="" type="checkbox"/> No (Briefly explain below the reason a filing fee has not been paid)			
Filing fee pending per approval of Local Coastal Permit and Notice of Determination.			
<p><i>Note: If a filing fee is required, the Department may not finalize a Lake or Streambed Alteration Agreement until the filing fee is paid.</i></p>			

15. SITE INSPECTION

Check one box only.
<input checked="" type="checkbox"/> In the event the Department determines that a site inspection is necessary, I hereby authorize a Department representative to enter the property where the project described in this notification will take place at any reasonable time, and hereby certify that I am authorized to grant the Department such entry.
<input type="checkbox"/> I request the Department to first contact (insert name) _____ at (insert telephone number) _____ to schedule a date and time to enter the property where the project described in this notification will take place. I understand that this may delay the Department's determination as to whether a Lake or Streambed Alteration Agreement is required and/or the Department's issuance of a draft agreement pursuant to this notification.

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

16. DIGITAL FORMAT

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

☒ Yes (Please enclose the information via digital media with the completed notification form)

☐ No

17. SIGNATURE

I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, the Department may suspend processing this notification or suspend or revoke any draft or final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless the Department has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.



Signature of Applicant or Applicant's Authorized Representative

6/10/14

Date

MARK R. DETTLE

Print Name

Director of Public Works
City of Santa Cruz

NOTICE OF DETERMINATION

TO: Office of Planning and Research
Post Office Box 3044
Sacramento, California 95812-3044

FROM: California Department of Fish and Wildlife
Bay Delta Region
7329 Silverado Trail
Napa, California 94558

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the
Public Resources Code

PROJECT TITLE: Neary Lagoon Vegetation Management and Sediment Removal Project

STATE CLEARINGHOUSE NUMBER: 2014062028

LEAD AGENCY: City of Santa Cruz
CONTACT: Suzanne Healy, (831) 420-5131

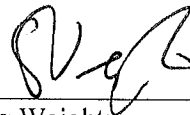
RESPONSIBLE AGENCY: California Department of Fish and Wildlife
CONTACT: Melissa Farinha, Environmental Scientist, (707) 944-5579

PROJECT DESCRIPTION / LOCATION: The project consists of periodically scheduled and implemented maintenance activities that are necessary to maintain pedestrian access areas, the functional width and depth of primary lagoon channels above the concrete weir and maintenance of the outflow channel upstream of the Neary Lagoon Pump Station. Maintenance activities include, but are not necessarily limited to the following: activities such as sediment removal or vegetation control to correct conditions that threaten or degrade natural environments (such as non-native plant species control, removal of trash from channels or drainage and erosion repairs, and habitat enhancement). The California Department of Fish and Wildlife is executing a Lake and Streambed Alteration Agreement Number 1600-2014-0251 pursuant to Section 1602 of the Fish and Game Code to the project Applicant, Mark Dettle/City of Santa Cruz Department of Public Works.

This is to advise that the California Department of Fish and Wildlife as a Responsible Agency approved the project described above on March 12, 2015 and has made the following determinations regarding the above described project pursuant to section 15096 (i).

1. The project **will not** have a significant effect on the environment.
2. CDFW considered the Mitigated Negative Declaration as previously prepared for this project by the Lead Agency.

This is to certify that a copy of the Negative Declaration prepared for this project is available to the general public and may be reviewed at: 809 Center Street, Santa Cruz, CA 95060. Please contact the lead agency person specified above.



Craig Weighman
Environmental Program Manager
Bay Delta Region

Date Received for Filing: _____