CALIFORNIA COASTAL COMMISSION
South Coast Area Office
200 Oceangate, Suite 1000
Long Beach, CA 90802-4302
(562) 590-5071

Th13a

Filed:	10/18/2012
180th Day:	4/16/2013
Staff:	Charles Posner - LB
Staff Report:	2/14/2013
Hearing Date:	March 7, 2013
Commission Action:	

STAFF REPORT: PERMIT AMENDMENT

Application Number: **5-06-460-A3**

Applicant: Orange County Flood Control District (Attn: Ms. Nardy Khan)

Agent: Rory Pastor, Orange County Department of Public Works

Project Location: Los Alamitos Retarding Basin, one thousand feet south of Second Street/Westminster Avenue and six hundred feet east of the San Gabriel River, a 42-acre site within the Cities of Long Beach (Los Angeles County) and Seal Beach (Orange County).

Description of Original Permit Approval 5-06-460 (July 10, 2007):

Construction of a 24-foot high, 9,486 square foot pump station to house four new natural gas-powered stormwater pumps, implementation of specific habitat mitigation measures including the creation of 0.28 acres of new wetlands, and the subsequent demolition of the existing outdated pump station. [The two prior permit amendment requests were not approved.]

Description of Permit Amendment Request 5-06-460-A3:

Implementation of a habitat mitigation and monitoring program, including wetland restoration and re-vegetation (1.43 acres), to mitigate impacts associated with the construction of a 9,486 square foot stormwater pump station at the Los Alamitos Retarding Basin. The project includes the relocation of two propane tanks and pipes out of a wetland.

Staff Recommendation: **Approval with conditions**

SUMMARY OF STAFF RECOMMENDATION

The proposed development falls within the Commission's permit jurisdiction because no certified Local Coastal Program (LCP) covers the project area. The Commission's standard of review for development in an uncertified area is the Chapter 3 policies of the Coastal Act. Staff is recommending that the Commission **APPROVE** the permit amendment with special conditions relating to permit compliance, annual monitoring reports, archaeological resources, protection of water quality, timing of the project, and future improvements. As conditioned, the proposed development will result in the restoration of 1.43 acres of habitat, including 0.40 acres of wetland to compensate (4:1 ratio) for the degradation of a 0.10-acre wetland that occurred during the construction of the new pump station. The applicant agrees with the recommendation. **See Page Three for the motion to carry out the recommendation.**

TABLE OF CONTENTS

EXHIBITS

PROCEDURAL NOTE

The Commission's regulations provide for referral of permit amendment requests to the Commission if:

1) The Executive Director determines that the proposed amendment is a material change,

2) Objection is made to the Executive Director's determination of immateriality, or

3) The proposed amendment affects conditions required for the purpose of protecting a coastal resource or coastal access.

In this case, the Executive Director has determined that the proposed amendment is a material change to the previously approved project. If the applicant or objector so requests, the Commission shall make an independent determination as to whether the proposed amendment is material. [l4 California Code of Regulations 13166].

I. MOTION AND RESOLUTION

Motion: *I move that the Commission **approve** the proposed amendment to Coastal Development Permit 5-06-460 pursuant to the staff recommendation.*

The staff recommends a **YES** vote. Passage of the motion will result in approval of the permit amendment as conditioned and adoption of the following resolution and findings. The motion passes only by an affirmative vote of a majority of Commissioners present.

Resolution: *The Commission hereby approves the coastal development permit amendment on the ground that the development as amended and subject to conditions, will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit amendment complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the amended development on the environment, or 2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the amended development on the environment.*

II. SPECIAL CONDITIONS OF PERMIT AMENDMENT 5-06-460-A3

The original special conditions of Coastal Development Permit 5-06-460 are still in effect (See Appendix B).

1. **Permit Compliance.** Coastal Development Permit Amendment 5-06-460-A3 permits the re-location of propane tanks out of a wetland area and the implementation of a habitat mitigation and monitoring program, including wetland restoration and re-vegetation, as expressly described and conditioned herein. The permittee shall construct, monitor and maintain the proposed habitat mitigation project consistent with the standards set forth in the "Mitigation and Monitoring Program for the Los Alamitos Pump Station Construction Project, Prepared for Orange County Public Works Department by Dudek, February 2013." All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions. Any deviation from the approved plans must be submitted for review by the Executive Director to determine whether another amendment to the underlying coastal development permit is required. Any additional development will require another amendment to the permit or a new coastal development permit. No changes to the approved development shall occur without a Commission amendment to this coastal development permit or a new coastal development permit, unless the Executive Director determines that no amendment or new permit is required.

2. **Performance Criteria - Annual Monitoring Report**. Each year, for a minimum of five years from the date of permit amendment issuance, the permittee shall submit, for the review and approval of the Executive Director, an annual monitoring report prepared by a qualified Resource Specialist which documents whether the approved project is in conformance with the performance criteria set forth in the "Mitigation and Monitoring Program for the Los Alamitos Pump Station Construction Project, Prepared for Orange County Public Works Department by Dudek, February

2013." The annual monitoring report shall include photographic documentation of plant species and plant coverage. For Area A (0.40-acre wetland): at the end of five years no more than five percent (5%) of the habitat restoration area shall be covered with non-native plants, and a minimum of seventy percent (70%) of the habitat restoration area shall be covered with native plants. For Area B (1.03-acre upland): at the end of three years no more than fifteen percent (15%) of the habitat restoration area shall be covered with non-native plants, and a minimum of sixty-five percent (65%) of the habitat restoration area shall be covered with native plants.

If the annual monitoring report indicates the re-vegetation is not in conformance with or has failed to meet the performance criteria set forth in the restoration plan approved pursuant to this permit amendment, the permittee shall submit a revised or supplemental habitat restoration plan for the review and approval of the Executive Director. The revised habitat restoration plan must be prepared by a qualified Resource Specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan. The permittee shall implement the supplemental habitat restoration plan approved by the Executive Director and/or seek an amendment to this permit if required by the Executive Director.

3. Archaeological Resources. The permittee shall comply with all recommendations and mitigation measures contained in "Phase I Cultural Resources Assessment, Los Alamitos Pump Station Project, Prepared for RBF Consulting by BonTerra Consulting, February 27, 2003" as modified by Special Condition Three of the underlying permit [Coastal Development Permit 5-06-460].

4. Construction Responsibilities. By acceptance of this coastal development permit amendment, the permittee agrees that the permitted development shall be conducted in a manner that protects water quality pursuant to the implementation of the following BMPs:

A. No construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to wave, wind, or rain erosion or dispersion.

B. Any and all construction material shall be removed from the site as soon as possible (within two days of completion of construction) and disposed of at an appropriate location. If the disposal site is located within the coastal zone, a coastal development permit or an amendment to this permit shall be required before disposal can take place.

C. All trash generated by construction activities within the project area shall be disposed of at the end of each day, or sooner if possible.

D. All grading and excavation areas shall be properly covered and sandbags and/or ditches shall be used to prevent runoff from leaving the site, and measures to control erosion must be implemented at the end of each day's work.

E. Washout from concrete trucks shall be disposed of at a controlled location not subject to runoff into coastal waters or onto the beach, and more than fifty feet away from a storm drain, open ditch or surface waters.

F. Erosion control/sedimentation Best Management Practices (BMPs) shall be used to control sedimentation impacts to coastal waters during construction. BMPs shall include, but are not limited to: Silt fencing shall be installed between work areas and the water to prevent runoff/sediment transport into the channel.

G. All construction equipment and materials shall be stored and managed in a manner to minimize the potential for discharge of pollutants. Any spills of construction equipment fluids or other hazardous materials shall be immediately contained on-site and disposed of in an environmentally safe manner as soon as possible.

H. During construction of the proposed project, no runoff, site drainage or dewatering shall be directed from the site into any bay, harbor, street or drainage unless specifically authorized by the California Regional Water Quality Control Board.

I. In the event that hydrocarbon-contaminated soils or other toxins or contaminated material are discovered on the site, such matter shall be stockpiled and transported off-site only in accordance with Department of Toxic Substances Control (DTSC) rules and/or Regional Water Quality Control Board (RWQCB) regulations.

The permittee shall undertake the approved development in accordance with this condition.

5. Conformance with the Requirements of the Resource Agencies. The permittee shall comply with all permit requirements and mitigation measures of the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Any change in the approved project which is required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

6. Timing of Project. Implementation of the approved habitat mitigation and monitoring program (i.e., removal of the propane tanks, grading and re-vegetation) shall commence as soon as possible, and no later than ninety (90) days from the date of Commission approval of Permit Amendment 5-06-460-A3, or within such additional time as the Executive Director may grant for good cause. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

7. Future Development Restriction. This permit is only for the development described in amended Coastal Development Permit 5-06-460-A3. Except as provided in Public Resources Code section 30610 and applicable regulations, any future development as defined in PRC section 30106, including, but not limited to, a change in the density or intensity of use land, shall require an amendment to Coastal Development Permit 5-06-460 from the California Coastal Commission or shall require an additional coastal development permit from the California Coastal Commission or from the applicable certified local government.

III. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION

The permittee (Orange County) proposes to implement a habitat mitigation and monitoring program, including wetland restoration and re-vegetation, to mitigate impacts associated with the construction of the previously permitted stormwater pump station at the Los Alamitos Retarding Basin. The proposed project includes the relocation of two propane tanks out of the 1.43-acre habitat restoration area.

The Commission, on July 10, 2007, approved Coastal Development Permit 5-06-460 (Orange County) for the replacement of an aged and outmoded pump station with a new modern pump station at the Los Alamitos Retarding Basin. The new pump station was constructed on top of the western berm of the basin, seventy feet south of the existing pump station. The pump station is necessary to move stormwater runoff from the Los Alamitos Retarding Basin, over Haynes Cooling Channel and the river levee, and into the San Gabriel River (Exhibit #2).

Proposed wetland restoration and re-vegetation plan, with relocation of propane tanks (Dudek 2013).

The Los Alamitos Retarding Basin, which is part of the Orange County Flood Control system, is located approximately one thousand feet south of Second Street/Westminster Avenue and six hundred feet east of the San Gabriel River (Exhibit #2).

The 42-acre site, which consists of a depressed (-10.0' elev.) thirty-acre basin surrounded by an earthen berm (+10.0' elev.) and unpaved access road, receives stormwater runoff and other drainage from a 3,584-acre area in northern Orange County (City of Seal Beach). The project site is bordered by Haynes Cooling Channel and the San Gabriel River on the west, Island Village residential community on the north, Boeing Corporation facilities on the east, and the Hellman Ranch project site and oil fields on the south (Exhibit #2). The project site straddles the county line and is within the city limits of both the City of Long Beach (Los Angeles County) and the City of Seal Beach (Orange County). No certified Local Coastal Program (LCP) covers the project area. Therefore, the proposed development falls within the Commission's permit jurisdiction.

The permittee has submitted the permit amendment request in order to restore a wetland (0.10 acres of mulefat scrub) that was de-vegetated and graded during the permittee's unauthorized installation of two propane tanks (with foundation, pipes and bollards) west of the new pump station, even though the wetland was required by the conditions of the underlying permit to be flagged and protected during construction of the pump station. Additionally, a 1.03-acre unpermitted project staging area will be re-vegetated with native plants, for a total restored habitat area of 1.43 acres. The currently proposed mitigation is addition to the 0.28 acres of new wetland habitat that has been created inside the retarding basin as mitigation of the development (new pump station) approved by the underlying permit.

The proposed project includes the re-location of the two propane tanks out of the wetland area and the implementation of the specific habitat restoration and mitigation measures described in the report entitled: "Mitigation and Monitoring Program for the Los Alamitos Pump Station Construction Project, Prepared for Orange County Public Works Department by Dudek, February 2013" (Exhibit #3). The specific habitat mitigation measures being proposed would result in the restoration of 1.43 acres of habitat, including 0.40 acres of wetland to compensate (4:1 ratio) for the degradation of the 0.10-acre wetland where the propane tanks were installed. The entire area where vegetation was removed will be planted with native plants.

First, the two propane tanks, along with their foundation, pipes and protective bollards, will be re-located about one hundred feet north to the location where they had previously been permitted to be installed by the underlying permit (See Page 7 of Exhibit #3). The propane is the emergency back-up fuel supply for the pump station. The 1.43-acre habitat restoration area would then be graded to restore the site's former contours, including the low spot where the former wetland existed. The restored wetland depression will receive the run-off from the rest of the habitat restoration area.

Subsequent to grading, the soils will be amended and prepared for the planting of appropriate native plant communities. The entire 1.43-acre habitat restoration area will be enclosed in a temporary protective fence during the monitoring period. The 0.40-acre wetland area will be enclosed by permanent fencing (such as log peeler or other animal-friendly fence) and posted with informational signs. The 0.40-acre wetland area will be vegetated with mulefat scrub, the same 0.10-acre plant community that had been mapped on the site before it was displaced by the propane tanks. The remaining 1.03 acres of restoration area will be vegetated with a transitional upland community, including southern tarplant (*Centromadia parryi ssp. Australis*), which is a federal species of concern and listed as a 1B.1 rare plant by the California Native Plant Society. Seeds for the southern tarplant will be collected locally, as will cuttings for mulefat and other native plant species. Container plants and hydroseed will be purchased from local nurseries. Temporary irrigation will be used until the plants are self-sustaining, and the restored wetland habitat area will be weeded and monitored for at least five years

to ensure its success. The restored upland habitat area will be weeded and monitored for at least three years to ensure its success. The Commission's staff ecologist has reviewed the permittee's proposed habitat mitigation and monitoring program and has determined that the proposal, as conditioned herein, will have a high probability of success.

B. MARINE RESOURCES AND ENVIRONMENTALLY SENSITIVE HABITAT AREAS

The Coastal Act contains policies that protect marine resources, water quality and sensitive habitats from the adverse impacts of development. The following Coastal Act policies apply to the proposed project. The applicant has submitted the currently proposed project in an effort to comply with the following Coastal Act policies that protect marine resources, water quality and sensitive habitats.

Section 30230 of the Coastal Act states:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231 of the Coastal Act states:

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

Section 30240 of the Coastal Act states:

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

The 42-acre Los Alamitos Retarding Basin is part of the County of Orange Flood Control system that receives drainage and stormwater runoff from the surrounding area in northern Orange County. The pumps housed in the pump station are necessary to move stormwater runoff from the Los Alamitos Retarding Basin, over the river levee, and into the San Gabriel River Estuary. The Seal Beach National Wildlife Refuge is located one mile southeast of the site, and the eastern edges of the Los Cerritos

Wetlands are located just a few hundred feet west of the site and the San Gabriel River. The entire area is part of the historic delta of the San Gabriel River.

The bottom (about thirty acres -10.0' elev.) of the Los Alamitos Retarding Basin is a wetland as defined by the Coastal Act because of the presence of hydric soils, water and hydrophytic vegetation. Many plant and animal species have been observed at the project site. The presence of one sensitive plant species has been documented within the basin: the southern tarplant (*Centromadia parryi ssp. Australis*) [Plant Surveys June 10, 2003 and February 23, 2006 by BonTerra Consulting]. In addition, patches of wetland and riparian vegetation (primarily mulefat/willows) can be found growing on the berms and upland areas (+10.0' elev.) that surround the basin. It was one of these areas of mulefat where the permittee placed the propane tanks; the action driving this permit amendment request for the proposed habitat restoration plan.

Many species of birds are known to inhabit the project area, including Great Blue Herons which were observed by staff feeding on mosquito fish within the basin on August 6, 2003. Burrowing Owls are also known to inhabit the area in the vicinity of the project, although none have been observed on the project site. Even so, the Mitigated Negative Declaration certified by the County includes mitigation measures to avoid the destruction of owl burrows while the burrows are occupied. Also, although no western snowy plovers have been observed at or near the site, the area could provide habitat for the endangered snowy plover as other plover species (black-bellied plover, semipalmated plover and killdeer) were seen in the area during an August 2003 survey. No threatened or endangered insects were detected on the site during a Focused Tiger Beetle Survey by Biologist Guy Bruyea in 2003, but site contains potential habitat for the Gabb's tiger beetle and sandy beach tiger beetle.

The proposed project includes the removal of propane tanks out of a 0.10-acre wetland area and the restoration of 1.43 acres of habitat, including 0.40 acres of wetland to compensate (4:1 ratio) for the degradation of the 0.10-acre wetland where the propane tanks were installed. The proposed project will restore degraded wetlands at a 4:1 ratio, and as conditioned, will not result in any adverse impacts to marine resources or water quality.

Section 30240 of the Coastal Act requires that environmentally sensitive habitat areas and areas adjacent to environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values. The proposed project will restore 0.40 acres of environmentally sensitive habitat area (the wetland), and 1.03acres of upland which is adjacent to the environmentally sensitive habitat area. The proposed restoration project, with the removal of the propane tanks and the erection of the protective fencing, will protect the environmentally sensitive habitat area as required by Section 30240(a) of the Coastal Act. The proposed restoration of the 1.03-acre area adjacent to the environmentally sensitive habitat area is designed to prevent adverse impacts which would degrade the wetland and is compatible with the continuance of the wetland habitat as required by Section 30240(b) of the Coastal Act. Therefore, the Commission finds that the project, as conditioned, is consistent with Section 30240 of the Coastal Act.

Fill of Coastal Wetlands

Section 30233(a) of the Coastal Act addresses fill or dredging of wetlands and open coastal waters as follows:

> *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (6)Restoration purposes.*

The proposed project affects a wetland, but only for restoration, which is one of the specific, enumerated uses for fill or dredging in a wetland. The fill (propane tanks, pipes and foundation) is being removed. No new fill is proposed. Minor grading of the wetland will occur, but only to restore the former contours of the site once the propane tanks are removed. Adequate mitigation is provided by the proposed project in that the prior unauthorized loss of 0.10 acres of wetland habitat will be offset by four-to-one restoration of the affected wetland area (in the same location), and the re-vegetation of the restored 0.40-acre wetland with appropriate native plants. The proposed project, as conditioned, is the least environmentally damaging feasible alternative, as it restores wetland habitat without causing any additional adverse impacts to the wetlands and sensitive habitat areas that exist on and adjacent to the project site. For the reasons discussed above, the Commission finds that the project, as conditioned, is consistent with Section 30233 of the Coastal Act.

Conditions of Approval

Sections 30230, 30231 and 30240 of the Coastal Act require that the natural resources of the project area be protected, restored and enhanced. Coastal Act Section 30233 limits activities that can be permitted in wetlands. In order to conform with the relevant policies of the Coastal Act, the permit includes special conditions relating to the proposed habitat and mitigation plan and protection of water quality.

Special Condition One requires the permittee to construct, monitor and maintain the proposed habitat mitigation project consistent with the standards set forth in the "Mitigation and Monitoring Program for the Los Alamitos Pump Station Construction Project, Prepared for Orange County Public Works Department by Dudek, February 2013." Any proposed changes must be submitted to the Executive Director for review.

Special Condition Two requires the permittee to submit annual monitoring reports for five years to document whether the approved project is in conformance with the performance criteria set forth in the approved mitigation and monitoring program. The condition states that no more than five percent (5%) of the wetland habitat restoration area shall be covered with non-native plants at the end of five years, and a minimum of seventy percent (70%) of the wetland habitat restoration area shall be covered with native plants at the end of five years. The proposed re-vegetation of the adjacent upland area with native plants has a shorter monitoring period (three years) and less stringent success criteria (15%/65%) because this upland area was formerly dominated by non-native weeds and was not identified as an environmentally sensitive habitat area (like the adjacent wetland). It is, however, important that the adjacent upland area be successfully vegetated with native plants so that it does not compromise the success of the proposed wetland restoration. If the annual monitoring reports indicate that the re-vegetation is not in conformance with or has failed to meet the performance criteria set forth in the restoration plan approved pursuant to this permit amendment, the special condition requires the permittee to submit a revised or supplemental habitat restoration plan with the measures necessary to remediate those portions of the original plan that have failed.

The Commission recognizes that chemical pollution and siltation adversely affect water quality, biological productivity and coastal recreation. Therefore, the Commission imposes **Special Condition Four** requiring the implementation of specific best management practices to protect water quality. The proposed work is located near coastal waters that support both sensitive species and public recreational activities. The storage or placement of construction material, debris, or waste in a location where it could be discharged into coastal waters would result in an adverse effect on the marine environment. Therefore, it is important that the work be performed in a manner that avoids or minimizes adverse impacts to water quality and marine resources. In order to minimize adverse construction impacts, the Commission requires the proper storage of construction materials and the implementation of spill prevention and control measures. Only as conditioned to protect the marine habitat from adverse construction impacts does the proposed project comply with the marine resource and sensitive habitat provisions of the Coastal Act.

Special Condition Five requires the permittee to comply with all permit requirements and mitigation measures of the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Only as conditioned will the proposed project ensure that marine resources and water quality be protected as required by the resource protection policies of the Coastal Act.

Special Condition Six requires the permittee to begin implementation of the proposed restoration project (i.e., removal of the propane tanks, grading and re-vegetation) no later than ninety (90) days from the date of Commission approval of Permit Amendment 5-06-460-A3, or within such additional time as the Executive Director may grant for good cause. This condition is necessary to ensure that the propane tanks are removed from the wetland and the proposed habitat restoration plan is carried out in a timely manner.

Special Condition Seven alerts the permittees that any future development of the restored habitat area will require a new coastal development permit or an amendment to Coastal Development Permit 5-06-460. In conclusion, the proposed habitat restoration project, as conditioned, is consistent with the ESHA and marine resource policies of the Coastal Act.

C. ARCHAEOLOGICAL RESOURCES

Section 30244 of the Coastal Act requires that reasonable mitigation measures shall be required where development would adversely impact archaeological or paleontological resources.

Section 30244 of the Coastal Act sates:

> *Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

The permittee has studied the known archeological sites in the area as part of an investigation entitled "Phase I Cultural Resources Assessment, Los Alamitos Pump Station Project, Prepared for RBF Consulting by BonTerra Consulting, February 27, 2003." Although there are no known archeological sites in the area where the proposed ground disturbance would occur, there are a significant number of sites in the immediate area. Prehistoric human remains have been unearthed within one mile of the project site at Hellman Ranch, and there is a possibility that archeological resources could be unearthed with the grading that would occur with the proposed project. Therefore, the Commission imposes **Special Condition Three** to ensure that reasonable mitigation measures are in place in the event that archeological resources are unearthed during completion of the permitted development. As conditioned, the proposed project is consistent with Section 30244 of the Coastal Act.

D. PUBLIC ACCESS AND RECREATION

One of the basic goals stated in the Coastal Act and is to maximize public access to and along the coast. The Coastal Act has several policies that protect public access along the shoreline and public recreational opportunities.

Section 30210 of the Coastal Act states:

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

Section 30211 of the Coastal Act states:

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

Section 30213 of the Coastal Act states:

> *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred...*

The proposed development will not interfere with public access or any existing public recreation uses of coastal resources as the project site is not open for public access at this time. The proposed development is about six hundred feet east of the San Gabriel River and the public bicycle route that runs along the east bank of the river. Therefore, the Commission finds that the proposed development, as conditioned, does not conflict with any of the public access or recreation provisions of the Coastal Act.

E. LOCAL COASTAL PROGRAM

A coastal development permit is required from the Commission for the proposed development because it is located within the Commission's area of original jurisdiction. The Commission's standard of review for the proposed development is the Chapter 3 policies of the Coastal Act. Coastal Act Section 30604(a) states that, prior to certification of a local coastal program ("LCP"), a coastal development permit can only be issued upon a finding that the proposed development is in conformity with Chapter 3 of the Act and that the permitted development will not prejudice the ability of the local government to prepare an LCP that is in conformity with Chapter 3. As conditioned, the proposed development is consistent with Chapter 3 of the Coastal Act. Approval of the project, as conditioned, will not prejudice the ability of the local governments (Cities of Long Beach and Seal Beach) to prepare an LCP that is in conformity with the provisions of Chapter 3 of the Coastal Act.

F. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 Title 14 of the California Code of Regulations requires Commission approval of a coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project, as conditioned, has been found consistent with the Chapter 3 policies of the Coastal Act. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

G. UNPERMITTED DEVELOPMENT

Unauthorized development, in the form of grading, vegetation removal, and installation of two propane tanks and pipes, has occurred on the property subject to this coastal development permit amendment application. The approval of this coastal development permit amendment application authorizes the restoration of the impacted area where the unauthorized development occurred. **Special Condition Six** requires the permittee to begin implementation of the proposed restoration project (i.e., removal of the propane tanks, grading and re-vegetation) no later than ninety (90) days from the date of Commission approval of Permit Amendment 5-06-460-A3, or within such additional time as the Executive Director may grant for good cause.

Although unauthorized development has taken place prior to Commission action on this permit amendment application, consideration of the application by the Commission is based solely upon Chapter 3 policies of the Coastal Act. Commission action on this permit amendment application does not constitute a waiver of any legal action with regard to the alleged violation nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal development permit or permit amendment.

Appendix A - Substantive File Documents

1. City of Long Beach Certified Local Coastal Program (LCP), 7/22/80.

2. Coastal Development Permit 5-06-460 (Orange County).

3. Mitigation and Monitoring Program for the Los Alamitos Pump Station Construction Project, Prepared for Orange County Public Works Department by Dudek, February 2013.

4. Phase I Cultural Resources Assessment, Los Alamitos Pump Station Project, Prepared for RBF Consulting by BonTerra Consulting, February 27, 2003.

Appendix B – Special Conditions of Permit 5-06-460

1. Permit Compliance

Coastal Development Permit 5-06-460 permits only the development and uses expressly described and conditioned herein. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions. Any deviation from the approved plans must be submitted for review by the Executive Director to determine whether an amendment to this coastal development permit is required. Any additional development will require another amendment to the permit or a new coastal development permit. No changes to the approved development shall occur without a Commission amendment to this coastal development permit or a new coastal development permit, unless the Executive Director determines that no amendment or new permit is required.

2. Habitat Mitigation Plan

The County shall construct, monitor and maintain the proposed habitat mitigation project consistent with the standards set forth in the Mitigation and Monitoring Program, Los Alamitos Pump Station Project, Prepared for the County of Orange by RBF Consulting, March 15, 2007, as modified to include the following additional requirements:

A. Prior to grading/construction/demolition activities authorized by this permit, the County shall install protective flagging around all existing native vegetation and wetland areas in order to protect these areas from unpermitted disturbance.

B. Prior to grading, the County must map any existing native vegetation within the bounds of the permitted temporary impact area and plan for 2:1 replacement of that vegetation following the grading authorized by this permit. Replacement planting shall follow the criteria and methods set forth in the Mitigation and Monitoring Program, Los Alamitos Pump Station Project Prepared for the County of Orange by RBF Consulting, March 15, 2007.

C. The implementation of the proposed habitat mitigation project shall commence prior to or simultaneous with the commencement of construction of the proposed pump station. Once the grading has commenced for the habitat mitigation project, the construction of the habitat mitigation site shall proceed continuously until it is completed in conformance with the approved plan.

D. Surveys for successful native wetland plant recruitment shall be added to the monitoring plan. If after two years, native wetland plant self-recruitment has not occurred, pickleweed and salt-grass plantings should be undertaken. In addition, periodic weed surveys and weed eradication for the wetland creation areas shall be added to the monitoring plan and performed for the duration of the monitoring program. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Invasive Plant Council, or as may be identified from time to time by the State of California shall be

employed or allowed to naturalize or persist on the site. No plant species listed as a "noxious weed" by the State of California or the U.S. Federal Government shall be employed or allowed to naturalize or persist within the property.

E. A five-year monitoring period shall commence upon the completion of the grading for the proposed habitat mitigation project. The County shall notify the Executive Director upon completion of the grading authorized by this permit.

F. Upon completion of the first year of the monitoring period, and annually thereafter, the County shall submit to the Executive Director a report which documents the implementation of the mitigation and monitoring plan and which documents the status of the habitat mitigation project in relation to the performance standards contained in the plan.

G. Any additional work or modifications to the habitat mitigation project which are necessary to meet the performance standards contained in the mitigation and monitoring plans shall be submitted to the Executive Director. Any change in the approved habitat mitigation project shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

H. The County shall be responsible for the ongoing maintenance of the habitat mitigation project and site. The required maintenance shall include regular cleaning and trash pick-up.

Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Executive Director, a revised habitat mitigation and monitoring program that includes the additional provisions set forth above in this condition. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved revised habitat mitigation and monitoring program shall be reported to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations. No changes to the approved plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

3. Archaeological Resources

A. Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Executive Director an archeological monitoring plan prepared by a qualified professional, that shall incorporate the following measures and procedures:

1. The applicant shall comply with all recommendations and mitigation measures contained in Phase I Cultural Resources Assessment, Los Alamitos Pump Station Project, Prepared for RBF Consulting by BonTerra Consulting, February 27, 2003 and as further modified by the conditions below and any other applicable conditions of this permit;
2. If any cultural deposits are discovered during project construction, including but not limited to skeletal remains and grave-related artifacts, traditional cultural sites, religious

or spiritual sites, or artifacts, the permittee shall carry out significance testing of said deposits and, if cultural deposits are found to be significant, additional investigation and mitigation in accordance with this special condition including all subsections. No significance testing, investigation or mitigation shall commence until the provisions of this special condition are followed, including all relevant subsections;

3. If any cultural deposits are discovered, including but not limited to skeletal remains and grave-related artifacts, traditional cultural sites, religious or spiritual sites, or artifacts, all construction shall cease in accordance with Subsection B of this special condition;
4. In addition to recovery and reburial, in-situ preservation and avoidance of cultural deposits shall be considered as mitigation options, to be determined in accordance with the process outlined in this condition, including all subsections;
5. Archaeological monitor(s) qualified by the California Office of Historic Preservation (OHP) standards, Native American monitor(s) with documented ancestral ties to the area appointed consistent with the standards of the Native American Heritage Commission (NAHC), and the Native American most likely descendent (MLD) when State Law mandates identification of a MLD, shall monitor all project grading;
6. The permittee shall provide sufficient archeological and Native American monitors to assure that all project grading that has any potential to uncover or otherwise disturb cultural deposits is monitored at all times;
7. If human remains are encountered, the permittee shall comply with applicable State and Federal laws. Procedures outlined in the monitoring plan shall not prejudice the ability to comply with applicable State and Federal laws, including but not limited to, negotiations between the landowner and the MLD regarding the manner of treatment of human remains including, but not limited to, scientific or cultural study of the remains (preferably non-destructive); selection of in-situ preservation of remains, or recovery, repatriation and reburial of remains; the time frame within which reburial or ceremonies must be conducted; or selection of attendees to reburial events or ceremonies. The range of investigation and mitigation measures considered shall not be constrained by the approved development plan. Where appropriate and consistent with State and Federal laws, the treatment of remains shall be decided as a component of the process outlined in the other subsections of this condition.
8. Prior to the commencement and/or re-commencement of any monitoring, the permittee shall notify each archeological and Native American monitor of the requirements and procedures established by this special condition, including all subsections. Furthermore, prior to the commencement and/or re-commencement of any monitoring, the permittee shall provide a copy of this special condition, the archeological monitoring plan approved by the Executive Director, and any other plans required pursuant to this condition and which have been approved by the Executive Director, to each monitor.

B. If an area of cultural deposits, including but not limited to skeletal remains and grave-related artifacts, traditional cultural sites, religious or spiritual sites, or artifacts, is discovered during the course of the project, all construction activities in the area of the discovery that has any potential to uncover or otherwise disturb cultural deposits in the area of the discovery and all construction that may foreclose mitigation options or the ability to implement the requirements of this condition shall cease and shall not recommence except as provided in Subsection C and other subsections of this special condition. In general, the area where construction activities must cease shall be 1) no less than a fifty-foot wide buffer around the cultural deposit; and 2)

no more than the residential enclave or commercial development area within which the discovery is made.

C. An applicant seeking to recommence construction following discovery of the cultural deposits shall submit a Significance Testing Plan for the review and approval of the Executive Director. The Significance Testing Plan shall identify the testing measures that will be undertaken to determine whether the cultural deposits are significant. The Significance Testing Plan shall be prepared by the project archaeologist(s), in consultation with the Native American monitor(s), and the Most Likely Descendent (MLD) when State Law mandates identification of a MLD.

1. If the Executive Director approves the Significance Testing Plan and determines that the Significance Testing Plan's recommended testing measures are de minimis in nature and scope, the significance testing may commence after the Executive Director informs the permittee of that determination.
2. If the Executive Director approves the Significance Testing Plan but determines that the changes therein are not de minimis, significance testing may not recommence until after an amendment to this permit is approved by the Commission.
3. Once the measures identified in the significance testing plan are undertaken, the permittee shall submit the results of the testing to the Executive Director for review and approval. The results shall be accompanied by the project archeologist's recommendation as to whether the findings are significant. The project archeologist's recommendation shall be made in consultation with the Native American monitors and the MLD when State Law mandates identification of a MLD. The Executive Director shall make the determination as to whether the deposits are significant based on the information available to the Executive Director. If the deposits are found to be significant, the permittee shall prepare and submit to the Executive Director a supplementary Archeological Plan in accordance with subsection D of this condition and all other relevant subsections. If the deposits are found to be not significant, then the permittee may recommence grading in accordance with any measures outlined in the significance testing program.

D. An applicant seeking to recommence construction following a determination by the Executive Director that the cultural deposits discovered are significant shall submit a supplementary Archaeological Plan for the review and approval of the Executive Director. The supplementary Archeological Plan shall be prepared by the project archaeologist(s), in consultation with the Native American monitor(s), the Most Likely Descendent (MLD) when State Law mandates identification of a MLD, as well as others identified in subsection E of this condition. The supplementary Archeological Plan shall identify proposed investigation and mitigation measures. The range of investigation and mitigation measures considered shall not be constrained by the approved development plan. Mitigation measures considered may range from in-situ preservation to recovery and/or relocation. A good faith effort shall be made to avoid impacts to cultural resources through methods such as, but not limited to, project redesign, capping, and placing cultural resource areas in open space. In order to protect cultural resources, any further development may only be undertaken consistent with the provisions of the Supplementary Archaeological Plan.

1. If the Executive Director approves the Supplementary Archaeological Plan and determines that the Supplementary Archaeological Plan's recommended changes to the proposed development or mitigation measures are de minimis in nature and scope, construction may recommence after the Executive Director informs the permittee of that determination.
2. If the Executive Director approves the Supplementary Archaeological Plan but determines that the changes therein are not de minimis, construction may not recommence until after an amendment to this permit is approved by the Commission.

E. Prior to submittal to the Executive Director, all plans required to be submitted pursuant to this special condition, except the Significance Testing Plan, shall have received review and written comment by a peer review committee convened in accordance with current professional practice that shall include qualified archeologists and representatives of Native American groups with documented ancestral ties to the area. Names and qualifications of selected peer reviewers shall be submitted for review and approval by the Executive Director. The plans submitted to the Executive Director shall incorporate the recommendations of the peer review committee. Furthermore, upon completion of the peer review process, all plans shall be submitted to the California Office of Historic Preservation (OHP) and the NAHC for their review and an opportunity to comment. The plans submitted to the Executive Director shall incorporate the recommendations of the OHP and NAHC. If the OHP and/or NAHC do not respond within thirty (30) days of their receipt of the plan, the requirement under this permit for that entities' review and comment shall expire, unless the Executive Director extends said deadline for good cause. All plans shall be submitted for the review and approval of the Executive Director.

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

4. <u>Protection of Water Quality – During Construction</u>

A. Prior to commencement of construction activities, the applicant shall submit for the review and approval of the Executive Director, a Construction Best Management Practices Plan for the project site, prepared by a licensed professional, and shall incorporate erosion, sediment, and chemical control Best Management Practices (BMPs) designed to minimize to the maximum extent practicable the adverse impacts associated with construction to receiving waters. The plan shall include a pre-construction meeting to review procedural and BMP guidelines with all contractors and the following specific requirements:

1. No construction materials, debris, or waste shall be placed or stored in a manner where it may be subject to wave, wind, rain, or tidal erosion and dispersion.
2. All trash generated on the construction site shall be properly disposed of at the end of each construction day.
3. Where permitted, disturbance of the basin bottom shall be minimized.

4. Staging and storage of demolition/construction machinery and storage of debris shall occur at least fifty feet from the water's edge.
5. Any and all debris resulting from construction and demolition activities shall be removed from the project site within 72 hours of completion of demolition and construction. Construction and demolition debris and sediment shall be removed or contained and secured from work areas each day that construction or demolition occurs to prevent the accumulation of sediment and other debris that could be discharged into coastal waters.
6. All demolition/construction debris and other waste materials removed from the project site shall be disposed of or recycled in compliance with all local, state and federal regulations. No debris shall be placed in coastal waters. If a disposal site is located in the coastal zone, a coastal development permit or an amendment to this permit shall be required before disposal can take place.
7. Erosion control/sedimentation Best Management Practices (BMPs) shall be used to control dust and sedimentation impacts to coastal waters during construction and demolition activities. BMPs shall include, but are not limited to: placement of sand bags around work areas and drainage inlets to prevent runoff/sediment transport into the San Gabriel River, its tributaries and the Pacific Ocean.
8. All construction materials, excluding lumber, shall be covered and enclosed on all sides, and kept as far away from storm drain inlets and receiving waters as possible.
9. In the event that lead-contaminated soils or other toxins or contaminated material are discovered on the site, such matter shall be stockpiled and transported off-site only in accordance with Department of Toxic Substances Control (DTSC) rules and/or Regional Water Quality Control Board (RWQCB) regulations.

B. The required Construction Best Management Practices Plan for the project site shall also include the following BMPs designed to prevent spillage and/or runoff of construction and demolition-related materials, sediment, or contaminants associated with construction activity. The applicant shall:

1. Develop and implement spill prevention and control measures and shall ensure the proper handling, storage, and application of petroleum products and other construction materials. These shall include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent any spillage of gasoline or related petroleum products or contact with runoff. It shall be located as far away from the receiving waters and storm drain inlets as possible.
2. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems. Washout from concrete trucks shall be disposed of at a controlled location not subject to runoff into coastal waters, and more than fifty feet away from a storm drain, open ditch or surface waters.
3. Provide and maintain adequate disposal facilities for solid waste, including excess concrete, produced during construction and demolition.
4. Provide and maintain temporary sediment basins (including debris basins, desilting basins or silt traps), temporary drains and swales, sand bag barriers, wind barriers such as solid board fence, snow fences, or hay bales and silt fencing.

5. Stabilize any stockpiled fill with geofabric covers or other appropriate cover, and close and stabilize open trenches as soon as possible.
6. Implement the approved Construction Best Management Practices Plan on the project site prior to and concurrent with the demolition and construction operations. The BMPs shall be maintained throughout the development process.

C. The Construction Best Management Practices Plan approved by the Executive Director pursuant to this condition shall be attached to all final construction plans. The permittee shall undertake the approved development in accordance with the approved Construction Best Management Practices Plan. Any proposed changes to the approved Construction Best Management Practices Plan shall be reported to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations. No changes to the approved plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

5. Lighting Plan

Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Executive Director, a project lighting plan for the approved pump station designed to minimize to the maximum extent practicable the adverse impacts associated with nighttime lighting to adjacent habitat areas. The lighting plan shall include provisions to ensure that no lighting associated with the project shall significantly impact adjacent environmentally sensitive habitat including adjacent wetlands and waterways. All lighting within the development shall be directed to the ground and shielded from adjacent areas, and shall be at the lowest levels that will still provide the amount necessary for safety. The lighting plan to be submitted to the Executive Director shall be accompanied by an analysis of the lighting plan prepared by a qualified biologist which documents that the lighting is designed to avoid impacts upon adjacent environmentally sensitive habitat including wetlands. The permittee shall undertake development in accordance with the approved final lighting plan. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

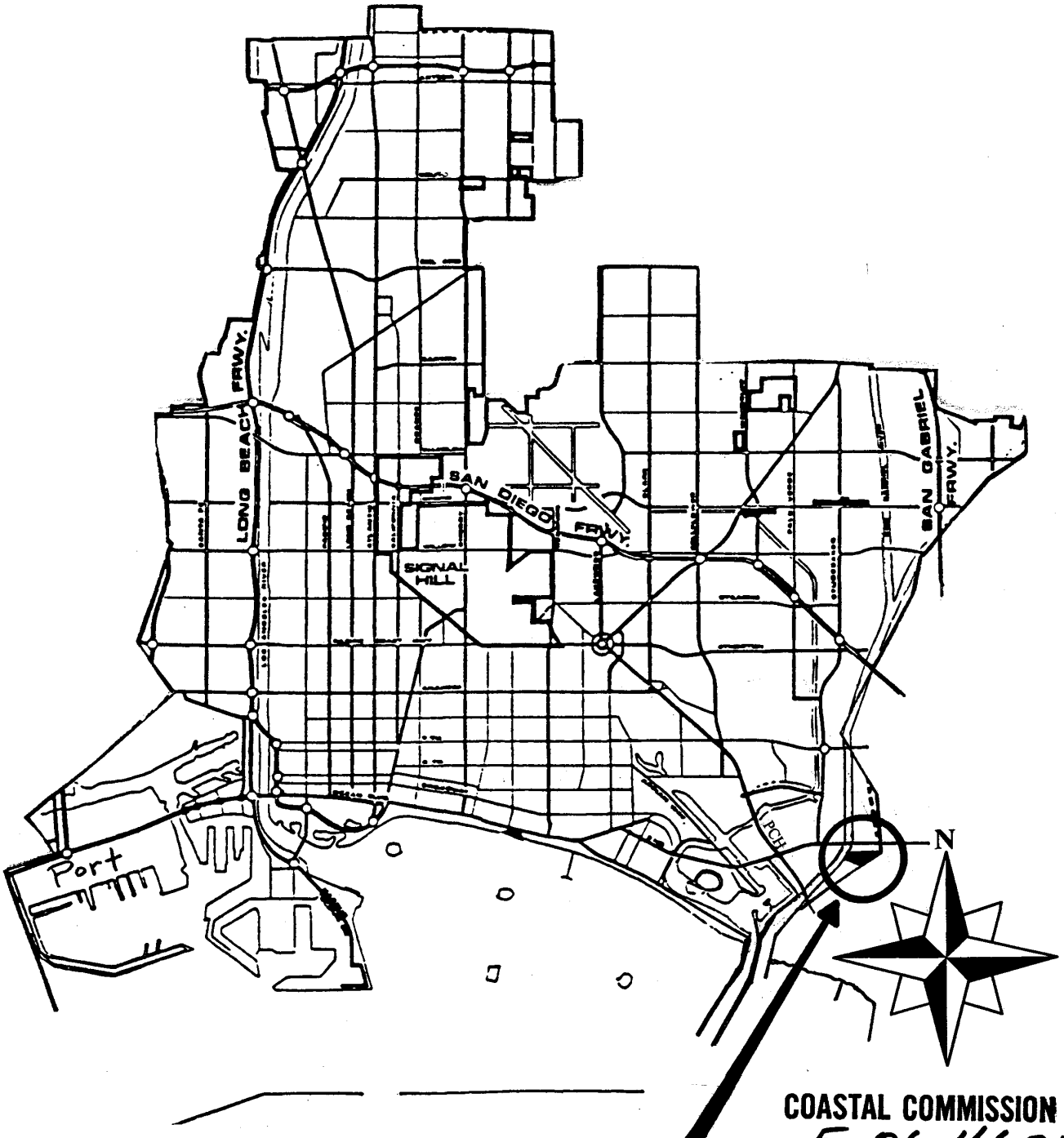
6. Resource Agencies

The permittee shall comply with all requirements, requests and mitigation measures from the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Any change in the approved project that may be required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

7. Easements

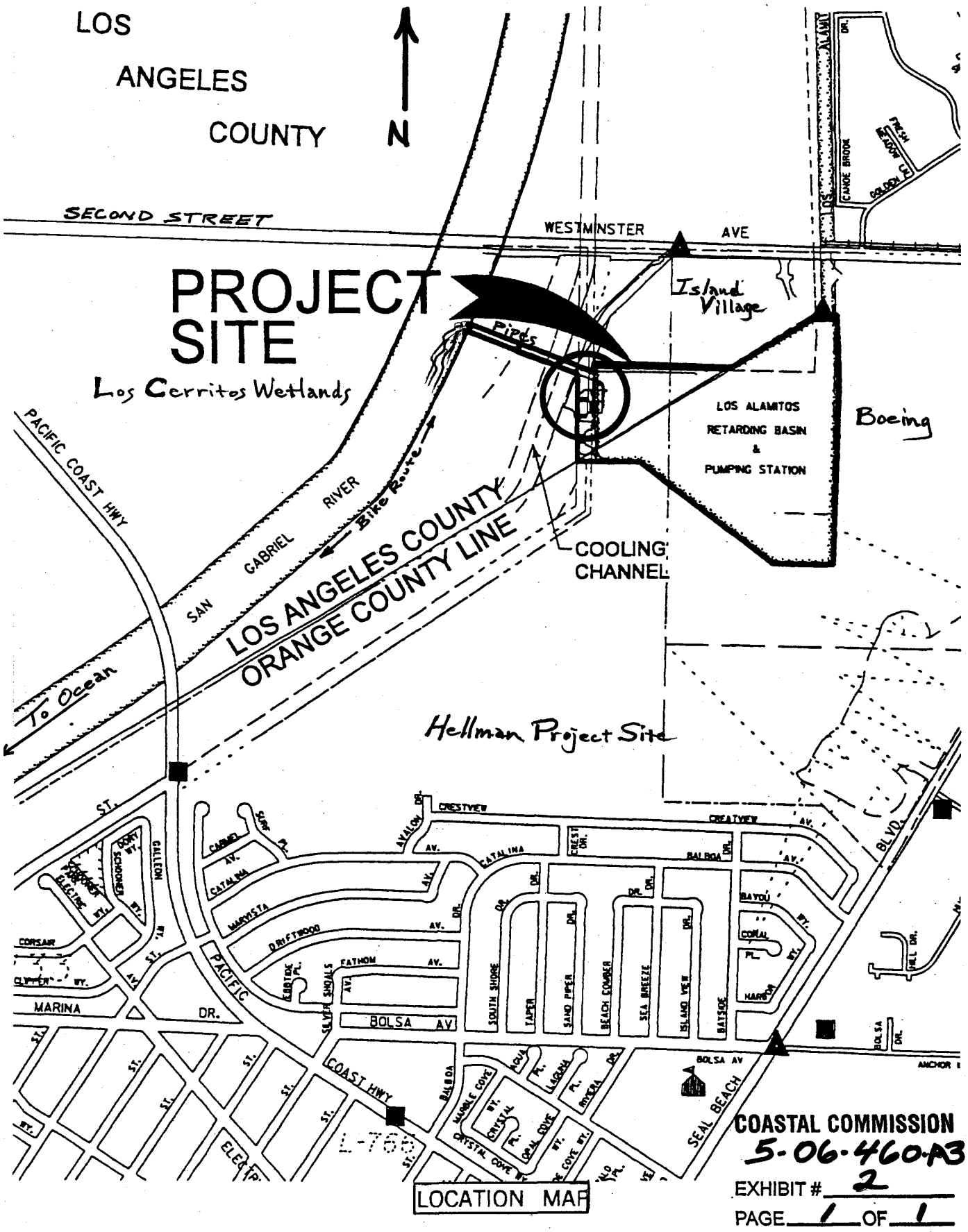
Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Executive Director, evidence of executed easements or other agreements with adjacent property owners, including the County of Los Angeles, Hellman Ranch, and Southern California Edison company that allows the applicant the right to carry out the portions of the proposed project that requires entering the adjacent properties. The easements or other agreements shall be accompanied by relevant property maps and scaled project plans necessary to interpret the portions of the project that intersect with the adjacent properties.

City of Long Beach



Los Alamitos Retarding Basin

COASTAL COMMISSION
5-06-460-A3
EXHIBIT # 1
PAGE 1 OF 1



COASTAL COMMISSION
5-06-460-A3
EXHIBIT # 2
PAGE 1 OF 1

MITIGATION AND MONITORING PROGRAM
for the
LOS ALAMITOS PUMP STATION
CONSTRUCTION PROJECT
CITY OF LONG BEACH, CALIFORNIA

Prepared for:

Orange County Public Works Department
OC Public Works/Project Management
300 North Flower Street
Santa Ana, California 92703-5000
Contact: Mr. Rory Paster
Telephone: 714.647.3912

Prepared by:

DUDEK
605 Third Street
Encinitas, California 92024
Contact: Mike Sweesy
760.479.4239

FEBRUARY 2013

REVISED FEBRUARY 14, 2013

SUMMARY

This mitigation is intended as compensation for unanticipated additional impacts which occurred during construction implementation of the Los Alamitos Flood Control Pump Station (hereafter referred to as LAPS) project. Prior to construction, the LAPS project was permitted for permanent impacts to 0.07 acre of U.S. Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and California Coastal Commission (CCC) jurisdiction coastal wetlands, which is outlined in the *Mitigation and Monitoring Program, Los Alamitos Pump Station Project, at City of Long Beach, California* (RBF et al. 2007) document.

This habitat mitigation and monitoring plan (Plan) described herein provides guidelines for the establishment of 0.40 acre of California Coastal Commission (CCC) jurisdictional mulefat scrub (MFS) wetlands for impacts to 0.10 acre of MFS, mitigated at a 4:1 ratio. This plan also includes the restoration and enhancement of 1.33 acres of temporarily impacted ruderal land contiguous to the MFS site, which was outside the originally permitted construction footprint of the LAPS project. The mitigation program described in this document provides guidelines for: (1) removal of existing propane tanks and associated structures from within the MFS establishment area (2) grading/recontouring of the MFS area (3) installation and establishment of 0.40 acre of MFS plant species. In addition, this plan provides guidelines for: (1) recontouring of soil stockpiled within the 1.33 acre ruderal area (2) installation and establishment of site appropriate native species including southern tarplant (*Centromadia parryi ssp. australis*). Southern tarplant is a listed Class B1 plant species, and is found on site along the eastern side of the Los Alamitos Retarding Basin (LARB). Both mitigation sites are located adjacent to the west and south of the newly constructed LAPS facility. The project site is located within in the San Gabriel Watershed, on the boundary of the Santa Ana Regional Water Quality Control Board (RWQCB) and the Los Angeles RWQCB. The County of Orange Flood Control District (OCFCD) is the owner of the LAPS project and, along with the County of Orange Resources and Development Management Department (RDMD). Orange County Public Works Department (OCPWD) will overseeing implementation of mitigation installation and is responsible for the successful implementation of this habitat mitigation program (HMP). CCC is the sole permitting regulatory entity involved with this additional mitigation action. ACOE, CDFW, and RWQCB do not have jurisdiction over these areas. Vegetation communities to be established, as described herein, shall comply with CCC criteria.

1.0 PROJECT AND SITE DESCRIPTION

1.1 Responsible Parties

Applicant /Permittee
Nardy Khan, P.E.
County of Orange Flood Control District (OCFCD)
300 N. Flower Street
Santa Ana, California 92703-5000
Phone: 714.647.3906

Client Project Manager
Rory Paster
County of Orange Public Works Department
300 N. Flower Street
Santa Ana, California 92703-5000
Phone: 714.647.3912

Biological Consultant
Michael Sweesy, RLA #3319
Dudek Engineering and Environmental
605 Third Street
Encinitas, California 92024
Phone: 760.942.514

1.2 Project Background

The LAPS upgrade project improves the existing LAPS facility, which was initially completed in 1958. These upgrades consist of the construction of a new pump station to increase the overall pumping efficiency capacity into the San Gabriel River and eliminate the potential for flooding in the drainage area. LAPS improvements consist of construction of four pumps adjacent to the original LAPS facilities. A Best Management Practice (BMP) water quality feature is constructed within the Los Alamitos Retarding Basin (LARB) floor. This BMP includes a low flow channel that re-directs a portion of the existing low flows that extend along the north side slope into a wet, water quality treatment swale, which will then discharge these low flows at the existing LAPS facilities. The total LAPS improvement area is 0.5 acre and includes space for a fifth pump. Access to LAPS is via an existing paved maintenance road from Westminster Avenue.

OCFCD is the fee owner of the LAPS project area and the adjacent 30 acre LARB (Figure 3). The LARB is used to temporarily retain storm flows and is designed to empty and discharge these flows into the adjacent San Gabriel River within 48 hours via the existing LAPS facilities. The LARB also functions as a water quality basin for storm flows as well as daily low flows.

OCFCD also owns the 50-foot wide and approximately 610-foot long easement between the existing pump station site and the San Gabriel River. County of Orange Resources and Development Management Department (RDMD) maintains and operates the existing LAPS on behalf of the OCFCD and is responsible for implementing the LAPS construction project and the originally permitted mitigation program. The LAPS project was originally permitted for permanent impacts to 0.07 acre of U.S. Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and California Coastal Commission (CCC) jurisdiction coastal wetlands, which is outlined in the *Mitigation and Monitoring Program, Los Alamitos Pump Station Project, at City of Long Beach, California* (RBF et al. 2007) document.

During construction of the LAPS upgrade project, it was observed by Charles Posner, of the California Coastal Commission (CCC), that two propane tanks had been located within 0.10 acre of CCC jurisdictional mulefat scrub (MFS) wetlands. In site preparation for tank installation, the MFS had been removed, and the site graded. This impact is being mitigation at a 4:1 ratio, and 0.40 acre of MFS is proposed to be established. In addition, 1.33 acres of ruderal area outside of the originally permitted construction footprint was used as a staging area and soil stockpile yard. Neither of these impacts were authorized in the original project permits, and therefore not included for mitigation and restoration in the *Mitigation and Monitoring Program, Los Alamitos Pump Station Project, at City of Long Beach, California* (RBF et al. 2007) document.

1.3 CCC Jurisdictional Impacts and Mitigation

Permitting for this action is described in CCC Application/Amendment CDP # 5-06-460, A3, dated August 2, 2012. This Habitat Mitigation and Monitoring Program document is in support of this permitting effort. CCC is the sole regulatory permitting entity involved with this additional mitigation action. ACOE, CDFW, and RWQCB do not have jurisdiction of these areas. Vegetation communities to be established, shall comply with CCC criteria. Impacts and mitigation are shown in Table 1. Of the 1.33 acre impacted ruderal site, 1.03 acre shall be revegetated with a native combination of saltmarsh and salt tolerant transitional upland species, including the listed Class B1 plant species southern tarplant (*Centromadia parryi ssp. australis*), with the remaining 0.30 acre being revegetated with higher quality MFS vegetation. Replacing the impacted ruderal vegetation with these native plant species will provide increased ecological functions and services compared with what was impacted.

Table 1
CCC Impacts and Mitigation Summary

Vegetation Community/ Land Cover Type	Permitting Regulatory Agency	Impact Acreage	Mitigation Ratio	Mitigation Acreage
Mulefat Scrub (MFS)	CCC	0.10	4:1	0.40
Ruderal	CCC	1.33	1:1	1.03*

*The entire 1.33 acre ruderal site will be revegetated, however 0.30 acre will be revegetated with higher quality MFS, and 1.03 with native transitional upland species.

1.4 Location

The LAPS project site is located in the City of Long Beach, south of Westminster Avenue, west of Seal Beach Boulevard, and east of the San Gabriel River (Figures 1 and 2). The project site is mapped on the Los Alamitos U.S. Geological Society (USGS) topographic quadrangle (Section 11, T.5S, R.12W, SBBM). The LAPS project site is located adjacent to the 30 acre LARB. The LARB and LAPS sites are located approximately one mile northwest of the Seal Beach National Wildlife Refuge and north of the proposed Hellman Ranch coastal wetlands restoration area.

Habitat restoration areas outlined herein, are located within the LAPS construction site, adjacent the station to the west and south.

1.5 Pre-Impact Conditions

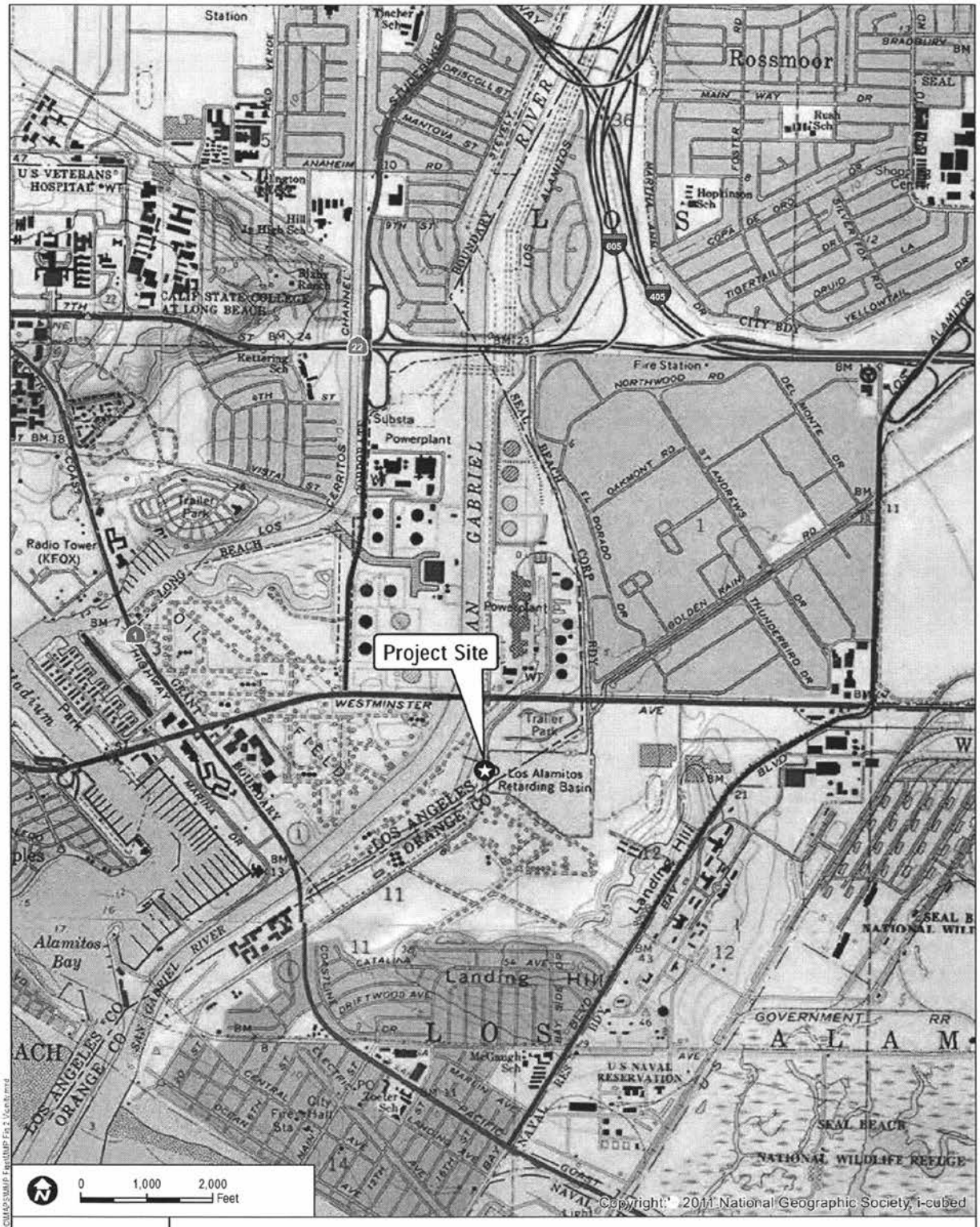
Based on review of pre-construction areal imagery, a grouping of shrub-sized vegetation verified by CCC to be mulefat (*Baccharis salicifolia*) can be seen existing within the propane tank area. This was an isolated patch of vegetation, primarily consisting of mulefat, surrounded by ruderal habitat. No direct connectivity to other wetland resources or native vegetation communities existed.

Prior to the utilization of the 1.33 acre ruderal site as a construction laydown/ staging yard and soil stockpile site, it consisted of a dry, flat pad, sparsely vegetated with non-native grasses, herbaceous annual weeds. This site was/ is surrounded by a mix of developed dirt roads, adjacent ruderal habitat, and drought tolerant saltmarsh species existing above the wetted capillary fringe.

1.6 Current Conditions

Currently, two propane tanks, and associated concrete pads and safety bollards, are located within the 0.10 acre MFS impact area. No vegetation, mulefat or otherwise, is currently present at this impact site.

The 1.33 acre ruderal laydown yard/ staging area, consists of stored construction equipment and supplies, a graveled parking area, and a soil export stockpile. The soil stockpile has been stabilized with erosion control mesh netting and is delineated with K-rail along the property boundary sides. Only a few small patches of non-native annual vegetation were present along the margins of the site. The majority of it has been graded and cleared of vegetation.



DUDEK

7180

FEBRUARY 2013

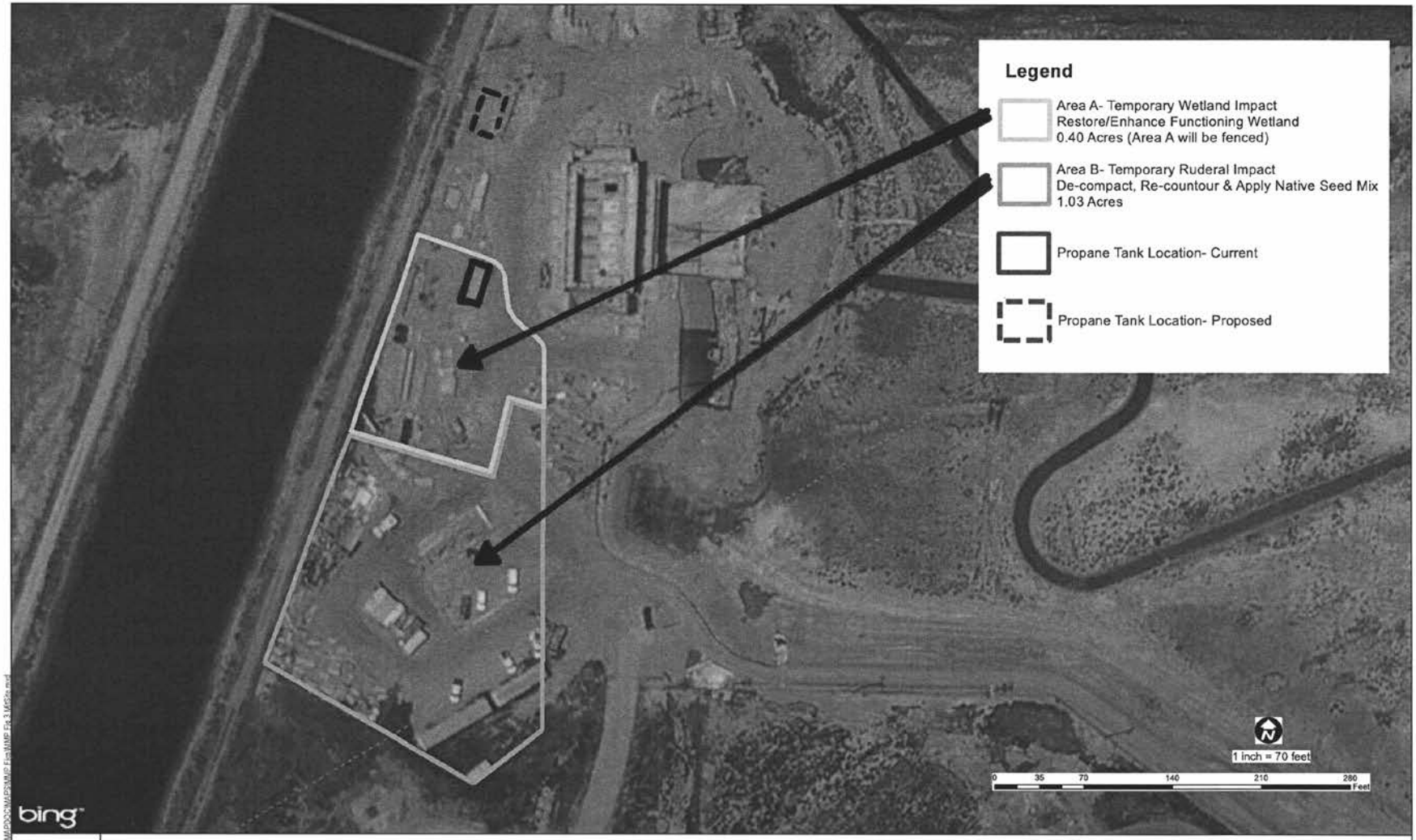
SOURCE: USGS 7.5-Minute Series Quadrangle.

FIGURE 2
Vicinity Map

Mitigation and Monitoring Program for the Los Alamitos Pump Station Construction Project

EXHIBIT # 3

PAGE 6 OF 25



DUDEK

7180

FEBRUARY 2013

SOURCE: ORANGE COUNTY FLOOD CONTROL DISTRICT CCC PERMIT AMENDMENT APPLICATION PACKAGE 2012

FIGURE 3

California Coastal Commission (CCC) Mitigation Site Locations

Mitigation and Monitoring Program for the Los Alamitos Pump Station Construction Project

2.0 MITIGATION PROGRAM GOALS

The goal of this mitigation program is to restore 0.40 acre of MFS as mitigation for the impacted 0.10 acre MFS, and 1.03 acre of temporarily impacted ruderal land cover to conditions as good, or ecologically improved, compared with pre-impact conditions within the maintenance and monitoring period. The maintenance and monitoring period will be five years for the MFS site and three years for the ruderal site. Mitigation for MFS will occur at a 4:1 ratio, and at a 1:1 ratio for ruderal impacts, with a portion of the impacted ruderal site being utilized for MFS mitigation. Restoration is proposed to occur at the site of the impacts.

MFS will be reestablished within the propane tank impact area, and adjacent area, to densities equal to, or greater than those estimated to be present.

The ruderal area will be revegetated with a diverse mix of native salt tolerant transitional upland species. Replacing the non-native ruderal vegetation with native species will improve ecological functions and services, reestablishing habitat connections to adjacent undeveloped land, thereby increasing ecological functions and services above what was impacted.

Although not part of the success criteria, project goals also include:

- Restoring native vegetation communities suitable for nesting, foraging, and breeding by native avian species.
- Maintaining quality of the established native vegetation communities through control of non-native and invasive plant species.
- Establish vegetation communities that are self-sustaining and functional beyond the maintenance and monitoring period.
- Provide increased functions and services within the ruderal mitigation area through replacement of non-native vegetation with appropriate native vegetation including the listed Class B1 plant species southern tarplant (*Centromadia parryi ssp. australis*).
- Satisfying California Coastal Commission (CCC) mitigation requirements.

2.1 Native Plant Communities to be Established

Native plant communities to be restored and enhanced are described below. This plan will create a single habitat block that incorporates both the mitigation areas. This will reduce negative edge effects, increases self-sustaining habitats and ultimately provides greater ecological function compared to two separate sites.

EXHIBIT # 3
PAGE 8 OF 25

Mulefat Scrub

Mulefat (*Baccharis salicifolia*) scrub is a tall, herbaceous riparian scrub strongly dominated by mulefat. It typically occurs along intermittent stream channels with generally sandy soils and a moderate depth to the water table. The community is maintained by frequent flooding, or succeeds to cottonwood (*Populus* sp.) or sycamore (*Platanus* sp.) dominated communities. Willows (*Salix* spp.), stinging nettle (*Urtica* sp.), and sedge may also be present. (Holland 1986).

On site, MFS existed within the 0.10 acre temporary impact area as an isolated, monotypic stand of mulefat, on top of the LARB berm levy. A slight depressional feature existed that allowed access to appropriate soil moisture to sustain this population. This stand existed above the groundwater table (approximately 7–10 feet above sea level (Google Earth)) and was not subject to inundation or streamflow scour.

Salt Tolerant Transitional Uplands

This vegetation community is not specifically described by Holland or others, but is being established in replacement for non-native ruderal vegetation impacted within the laydown yard at LAPS. It will consist of appropriate salt tolerant transitional upland and salt marsh species. Topography will be flat to gently undulating, and graded to drain towards the proposed MFS mitigation area. A key goal for this area is to support southern tarplant.

2.2 Biological Functions and Services of Native Plant Communities to be Established

The proposed mitigation activities will restore and expand biological functions and services temporarily impacted during construction of the LAPS, by reestablishing MFS which was cleared for installation of propane tanks. The mule fat and site-specific herbaceous species will provide shelter, forage, and other habitat opportunities for avian and wildlife species within the LARB area.

Replacing the previously impacted non-native ruderal plant species with native species will help reduce reestablishment of invasive species, provide soil cover for erosion control, and expand the establishment of the special status plant species southern tarplant.

To enhance spatial value of both the MFS and the native uplands transitional areas, it is proposed to adjoin the two into a single preserve area, thereby providing connectivity of native vegetation communities and reducing potential negative edge-effects.

3.0 PROJECT IMPLEMENTATION

Installation and maintenance activities will be conducted as outlined herein to promote success of the project, achieve CCC permit requirements.

3.1 Project Implementation Personnel

3.1.1 Permittee/ Project Manager

The County of Orange Flood Control District (OCFCD) is the owner and CCC permittee of the LAPS project and, along with the County of Orange Resources and Development Management Department (RDMD). Orange County Public Works Department (OCPWD) is overseeing implementation of mitigation installation and will be responsible for the successful implementation of this habitat mitigation program (HMP). Project management will be provided by OCPWD. OCFD and OCPWD shall be financially responsible for implementation and management of this project.

3.1.2 Project Biologist

The Project Biologist will review all aspects of pertinent contract documents, including but not limited to site protection, submittal, scheduling of formal site observations, and lines of communication, prior to project implementation.

The Project Biologist will oversee and coordinate implementation of this mitigation plan and the construction drawings, interpret said plans, conduct field monitoring of project installation and perform biological monitoring throughout the maintenance and monitoring period. The Project Biologist shall possess specific knowledge and demonstrate experience with habitat restoration projects. The Project Biologist shall possess at least five years of habitat restoration experience in Southern California.

The Project Biologist will inform all project personnel prior to implementation of this mitigation plan of all on-site construction restrictions and conditions. The Project Biologist will inform all project personnel of the presence or potential presence of sensitive species and vegetation communities within or adjacent to the project areas, as well as any potential dangers on site. Information about federal, state, and local laws relating to these biological resources will be discussed as part of personnel education. Access and staging areas outside of environmentally sensitive areas will be established.

Biological monitoring will occur throughout the restoration installation period. Monitoring time may increase or decrease as required by field conditions and construction activities. During construction, the Project Biologist, via the OCPWD project manager, will have authority to stop

work in situations where biological resources not authorized to be impacted are in imminent danger of impacts from adjacent construction activities. Each site visit will be documented in a site observation report that will note restoration installation activities relating to the restoration plan and any project deficiencies.

The Project Biologist shall conduct on-site monitoring visits throughout the maintenance and monitoring period to assess progress and growth trends, document project deficiencies and provide recommendations for remedial measures. Each monitoring visit will include a qualitative assessment of maintenance work and will include remedial recommendations as necessary to help ensure each year's performance criteria are met. Monitoring of the restoration program will be performed in accordance with the resource agency requirements and this plan.

3.1.3 Restoration Contractor

OCPWD will select a qualified Restoration Contractor to implement the restoration installation and maintenance plan. Restoration installation and associated labor shall be provided by a contractor possessing a valid California landscape contractor's license, who has previous experience with native habitat restoration in the region, and who can demonstrate at least three successful similar restoration projects in Southern California. The contractor must be able to identify California native plants and common weed species and demonstrate knowledge of habitat restoration techniques.

The contractor will be responsible for conformance to (1) this mitigation plan, and (2) CCC requirements. The contractor will also be responsible for seed collection of southern tarplant as specified by OCPWD and the Project Biologist. The contractor's responsibility for installation will continue until successful completion and final acceptance by OCPWD and the Project Biologist at the end of the initial 120-day plant-establishment period (PEP). The contractor will not be released from contractual obligations for installation until written notification is received from OCWPD, after approval by the CCC, that all required installation tasks as defined in the installation contract, this restoration plan, and the project permits have been successfully completed.

After initial installation and completion of the PEP, OCWPD will have five years of maintenance services performed for the MFS site, and three years for the ruderal site, by a qualified contractor that specializes in native vegetation community restoration. Maintenance work shall be performed as indicated herein and per the Project Biologist's recommendations. OCWPD may choose to hire a maintenance contractor that is separate from the installation contractor.

3.2 Seed Collection

Seed collection shall be performed for southern tarplant (*Centromadia parryi ssp. australis*) at sites specified by OCPWD and the Project Biologist, based on harvest condition and seed availability. Two discrete populations of southern tarplant have been identified on the eastern bank of the LARB, which constitute the closest possible seed source. Another larger potential harvest site exists at the Talbert Nature Preserve, located in Huntington Beach, adjacent where Victoria Street crosses the Santa Ana River. Should both site prove to be infeasible, or insufficient for adequate seed collection, a native seed supplier may be contracted to provide southern tarplant seed sourced as close to the site as possible. Seed sources shall be evaluated and determined by OCPWD in consultation with the Project Biologist. It is possible multiple seed sources may be used in conjunction, or at varying times. The contractor shall be responsible for acquisition and installation of the seed, as directed by OCPWD and the Project Biologist.

Should the project's installation timeline result in missing the appropriate harvest window for southern tarplant seed that year, the seed shall be acquired during the next annual harvest window, and installed at that time under direction of the Project Biologist. To provide adequate establishment, annual collection/ acquisition of southern tarplant seed is incorporated into the maintenance program during the maintenance and monitoring period.

3.3 Site Preparation

Site preparation shall be conducted under direction from OCPWD and the Project Biologist. Specific tasks are outlined below.

3.3.2 Propane Tank and Construction Staging Removal

Within the MFS area, the existing propane tanks and associated foundation and protective structures shall be removed by a OCPWD designated entity. All poured concrete foundations, footings, protective pilings and any transport pipes, or other anthropogenic materials shall be removed. Removed tanks and materials shall be relocated within non-jurisdictional wetlands or waters on the LAPS site, or as designated by the OCPWD project manager.

Within the laydown yard restoration area, all stored vehicles, construction machinery, stockpiled construction materials, construction fencing, temporary buildings, and other stored materials shall be removed, and relocated to an appropriate site as designated by the OCPWD project manager.

3.3.3 Grading

Within the MFS site, the installation contractor shall perform grading as outlined in this plan, and as directed by the project biologist. This will entail creating a depressional topographic feature. The MFS site will also receive runoff from the adjacent laydown yard.

Within the laydown yard restoration area, the soil stockpile, which is comprised of excavated soils from the LAPS facility construction, shall be graded and incorporated into the existing topsoil within the 1.03 acre site as outlined in the construction drawings and specifications. Topography shall be slightly undulating and sloped to direct runoff from the laydown yard area into the MFS mitigation area. This micro-topography will allow for a more varied and natural variance and plant distribution diversity throughout the site. Ripping and decompaction may be necessary depending on final soil conditions.

3.3.4 Weed Control

Following grading, and prior to planting and seeding of the sites, the contractor will be responsible for performing adequate control of non-native species, as directed by the OCPWD project manager and the Biological Monitor. Weed control may include Russian thistle, dense-flowered sprangletop, ice plant, wild radish, and bristly ox tongue and any other species identified by the Biological Monitor. The irrigation system may be utilized for "grow and kill" cycles for initial weed control, as outlined in Section 3.3.6. Control will include hand-pulling of weeds, use of weed whips, and/or foliar treatments of appropriate herbicides as determined by the OCPWD project manager and the Biological Monitor. Specific herbicide application rates and methods will be based on manufacturer specifications and will follow the general guidelines summarized below.

- Herbicides will be applied in a manner that ensures that each plant receives a comprehensive and fully effective treatment, and that re-sprouting from root materials is minimal. Application methods will follow manufacturer specifications regarding application and safety procedures. Herbicide application will only be performed by licensed applicators and comply with state and local regulations. All application tasks will be performed by or under supervision of a licensed applicator with the Pest Control Business License issued by the State of California Department of Parks and Recreation (DPR) and registered with the County Agricultural Commissioner.
- Application will consist of: (1) spot applications to individual plants where weed coverage is sparse and (2) broadcast applications to dense patches of weed species. Applications should be on a spray-to-wet basis and coverage should be uniform and complete. Contact with native shrub and grass species should be avoided as much as possible; in the event of gusty winds or winds in excess of five miles per hour (Mph), all

work will be temporarily discontinued to protect applicators and adjacent natural resources. Treatments should also be temporarily discontinued in the event of rainfall since rainfall reduces the effectiveness of the herbicide.

- Sprayed vegetation should be left undisturbed for seven days to allow the herbicide to be distributed throughout the entire plant. Visible effects of herbicide application consist of wilted foliage, brown foliage, and disintegrated root material.
- All treated plant materials should be removed by a string trimmer or other appropriate equipment and disposed of offsite within a landfill.
- The steps listed above should be repeated two to three times every two to three weeks following the initial treatment to remove seedling weed species.

3.3.5 Soil Preparation

Prior to planting the soil shall be amended per the construction plans and specifications, which are based on Agricultural Suitability testing of soil samples. Amendments shall be incorporated as specified, and the soil surface cleared of any existing weeds or thatch, so that mineral soils are exposed. The surface shall be raked/roughened as-necessary to provide optimal soil-seed contact and adhesion. Site specific soil preparation methodologies will be outlined in the construction plans and specifications.

3.3.6 Supplemental Irrigation

A temporary above ground spray irrigation system will be installed to support native vegetation development until plants are self-sustaining, based on observed and predicted seasonal rainfall and effective plant rooting depth. Germination and seedling establishment will also progress much more rapidly than if left to seasonal rainfall patterns within the first few growing seasons.

In addition, the irrigation system may be used for site preparation prior to plant and seed installation to induce germination of non-native species for "grow and kill" cycles. This may consist of running the irrigation regularly until germination of seeds within the soil's seed bank occurs. Once seedlings are big enough to be positively identified, they may be controlled. Appropriate native species which have germinated may be left in place. This cycle of grow and kill may be repeated until the non-native seed bank within the sites has reached a desirable level.

All irrigation will be installed by the installation contractor under direction of the Project Biologist. The irrigation system should be designed with above ground components to facilitate removal once the system is decommissioned. Water sources and points of connection shall be from onsite locations associated with the LAPS facility. The goal of the restoration project is to

create native, self-sustaining plant communities. Ideally, irrigation use would be discontinued at least 2 years before the end of the maintenance and monitoring period to demonstrate the vegetation communities' ability to survive without supplemental water.

The irrigation system would use a programmable valves that would operate independent irrigation circuits, minimizing irrigation maintenance requirements for the site. All irrigation on site would consist of UV resistant polyvinyl chloride (UV-PVC) pipe staked at grade, with 100% coverage from spray heads.

The Project Biologist would consult with the client and the restoration contractor regarding the watering schedule during the monitoring period and the timing for the cessation of irrigation. Irrigation should stop at the earliest possible date without risking significant loss of plantings.

3.3.7 Planting and Seeding

Once the site has been prepared appropriately, planting and seeding may occur under direction of the Project Biologist. Plant materials will consist of live cuttings, container plant stock, and hyroseed mix application. Plant palettes and installation methodologies are outlined in Section 4.1.

3.3.8 Fencing and Signage

The contractor shall install permanent fencing (such as log peeler or other) around the MFS site to delineate its boundaries, protect it from inadvertent impacts, and prevent encroachment activities. Fencing which entraps or otherwise adversely impacts wildlife shall not be used. Only the MFS site is scheduled to receive permanent fencing, with the ruderal site receiving temporary construction fencing during its three year maintenance and monitoring period.

Signage around the preserve shall be installed identifying that the site is a habitat restoration project, and that access from unauthorized personnel is prohibited. Signage shall identify a contact person and phone number for interested parties to call for more information.

3.3.9 Erosion Control BMPs

Erosion control Best Management Practices (BMPs) will be used where necessary to effectively reduce the mobilization and transport of sediments and pollutants from the mitigation sites during initial implementation and during the maintenance and monitoring period. Specific use of BMP's.

The deposition of debris, herbicides, fertilizers, pesticides, petroleum products, or any other pollutants within the mitigation sites or the adjacent LARB will be prohibited.

4.0 RESTORATION PLAN

This section provides description of plant species to be installed, and installation methods for live cuttings, container plants and hydroseed. Installation during the late fall or winter is ideal for harvesting live cuttings during a more dormant period, and installing prior to the winter rainy season. Since a temporary, above ground irrigation system is proposed however, planting is possible at any time of the year.

4.1 Plant Palette

The mitigation areas will be vegetated with native species that are appropriate to the vegetation community contexts and goals. Planting palettes for each vegetation community are provided in Tables 2 and 3. The intent of these plant palettes is to create a diverse assemblage of native species that will replace and increase the functions and services of the impacted vegetation communities. Container plants and seed mixes applied to the sites shall be sourced as locally as possible. Some species, such as *Heliotropium curassavicum* and *Centromadia parryi* ssp. *Australis,* or others, may not be available as seed at the time of initial project installation. If these species or any others are not available at the time of installation, they will be obtained when available, and applied accordingly at a later date under direction of the Project Biologist.

Table 2
Mulefat Scrub Plant Palette (0.40 acre)

Botanical Name	Common Name	Minimum PLS	Pounds Per Acre
Ambrosia psilostachya	western ragweed	6	10
Atriplex canescens	fourwing saltbush	35	0.5
Distichlis spicata	salt grass	70	4
Encelia californica	California bush sunflower	25	2
Heliotropium curassavicum	salt heliotrope	12	4
Isocoma menziesii	coast goldenbush	15	7
Iva hayesiana	San Diego marsh-elder	20	9
Limonium californicum	California sea lavender	20	3
		Total Pounds per Acre	39.5

Botanical Name	Common Name	Container Plants	Average Spacing (feet on center)	Quantity
Baccharis salicifolia	mulefat	1 gallon	5	87
Baccharis salicifolia	mulefat	live cuttings	3	145
Pluchea sericea	arrowweed	1 gallon	15	4

Note: All hydroseed mixes shall include seed mix indicated in pounds per acre and virgin wood cellulose fiber mulch at 2,500 pounds per acre.

Table 3
Transitional Uplands Plant Palette (1.03 acre)

Botanical Name	Common Name	PLS	Pounds Per Acre
Amsinckia menziesii	fiddleneck	25	1
Artemisia californica	California sagebrush	10	2
Atriplex canescens	fourwing saltbush	35	0.5
Bromus carinatus	California brome	85	2
Camissonia bistorta	California suncup	60	3
*Centromadia parryi ssp. Australis**	southern tarplant	TBD	TBD
Cressa truxillensis	alkali weed	7	3
Distichlis spicata	salt grass	70	2
Encelia californica	California bush sunflower	25	2
Frankenia salina	alkali heath	4	3
Grindelia camporum	gumplant	70	3
Hazardia squarrosa	sawtooth goldenbush	3	2
Heliotropium curassavicum	salt heliotrope	12	4
Isocoma menziesii	coast goldenbush	15	2
Lasthenia glabrata	yellowray goldfields	85	2
Lessingia glandulifera	valley lessingia	TBD	2
Limonium californicum	California sea lavender	20	3
		Total Pounds per Acre	36.5

Note: All hydroseed mixes shall include seed mix indicated in pounds per acre and virgin wood cellulose fiber mulch at 2,500 pounds per acre.
*To be collected and hand broadcast.

4.2 Planting Design Layout

Planting design and container plant layout shall be randomly patterned (as opposed to rows), to create a natural patchiness that is typical within the target plant community. The installation contractor shall lay out container plants, and the Project Biologist shall inspect the locations, and adjust placement, if necessary.

4.3 Container Plant, Live Cutting, and Hydroseed Installation

4.3.1 Live Cuttings

Cuttings will be harvested from existing MFS patches around the LARB and within the LAPS project area, and installed after appropriate preparation. Harvesting methods will include:

- Harvesting live branches at the most dormant period feasible
- Selecting healthy, live, reasonably straight wood during harvesting procedures;

- Using live wood that is at least one year in age and avoiding the use of current year sucker growth;
- Producing cuttings that are .75–1.5 inches in diameter and at least 36 inches long;
- Cutting stake butt ends cleanly and at a 45 degree angle without splits and splinters; and
- Removing all lower branches and leaves from the stake to a minimum height of 12–18 inches from the butt end to increase the surface area available for rooting and to facilitate efficient installation.
- If cuttings are not installed immediately after harvest, they should be soaked in water until installation, up to a maximum of 48 hours. Cuttings soaked longer than 48 hours shall be discarded.

Cutting installation methods will include:

- Installing a minimum of 18 inches of the butt-end in the soil so that the soil surface is flush with remaining branches and tamping the soil around butt-end;
- Use 4 inch diameter auger to create plant hole depth, backfilling planting hole with amended backfill.
- Soaking all cuttings in water for a minimum of 24 hours prior to planting so that they do not dry out, unless cuttings may receive immediate and sufficient irrigation upon planting;
- Discarding cuttings with damaged buds, stripped bark, or splits and replacing them with undamaged stakes; and
- Planting stakes throughout the MFS mitigation site as directed by the Biological Monitor.

Modifications to these methods will occur in consultation with the OCPWD project manager and the Biological Monitor.

4.3.2 Container Plant Installation

Implementation of this plan must be coordinated with the contractor, OCPWD, and the Project Biologist. All container plants will be checked for viability and general health upon arrival at the mitigation site by the Project Biologist. Plant materials not meeting acceptable standards will be rejected. Plant species and quantities will be confirmed after delivery by the Project Biologist. Container plants shall be laid out by the contractor, and their placement verified and adjusted by the Project Biologist.

Standard planting procedures will be employed for installing container plants. Holes approximately twice the width of the rootball of the plant and the same depth will be dug using

a post hole digger or power auger. Holes will be filled with water and allowed to drain immediately prior to planting. Backfill soil containing amendments (per formal soils analysis recommendations and as directed by the Project Biologist) will be placed in every planting hole following soaking, and container plants will be installed so that the root ball is entirely below grade.

4.3.3 Hydroseed Installation

Individual mixes have been prescribed for the different vegetation communities. Labels for each seed delivered to the site will be inspected and approved by the Project Biologist prior to mixing and application. All mixes are to include the specified seed mix at the prescribed rates per acre; virgin wood cellulose fiber mulch at 2,500 pounds per acre; commercial fertilizer at the specified rate, as directed by the Project Biologist during finish grading; and a commercial binder (Az-Tac or equivalent) at 150 pounds per acre.

All seeds will be clearly labeled showing type of seed, test date, the name of the supplier, and percentage of the following: pure seed, crop seed, inert matter, weed seed, noxious weeds, and total germination content. All material will be delivered to the site in original, unopened containers bearing the manufacturer's guaranteed analysis. All seed mixes will be stored in a dark, cool place and not be allowed to become damp.

Installation between the months of October to January are ideal for allowing establishment during the cooler and wetter time of the year. However, with the presence of a temporary above ground irrigation system, installation at any time of the year is possible if necessary.

While the initial seed application is proposed to consist of hydroseeding, additional seed may be hand broadcast, should the seed not be available at the time of initial hyroseed installation. The contractor should consult the Project Biologist in the event that a given species on the plant palette will not be available for inclusion into the initial hydroseed mix. In addition, it is proposed that southern tarplant seed is collected annually and installed by hand broadcast methods each year of the maintenance and monitoring period.

4.3.4 120-Day Plant Establishment Period

During the first 120 days following completion of project installation, the contractor shall be responsible for the health and mortality of the installed plant material. The Project Biologist will visit the site at 30, 90, and 120 days during this Plant Establishment Period (PEP). At the 90-day visit, the Project Biologist shall take inventory of any container plants or live cuttings which have died, and provide a punch-list of replacement plants for the contractor. Generally plants will be recommended for in-kind replacement, however the Project Biologist may recommend alternative species if it is suspected that suitability to the growing conditions is the cause for

mortality. Plants noted for replacement shall be installed prior to the 120-day walk through with the Project Biologist. At 120-days, the installed plant material shall have a 100% survival rate. A PEP schedule is shown in Table 4.

Table 4
PEP Maintenance Schedule (First 120 Days of the Maintenance and Monitoring period)

Work Task	1-30 Days	31-60 Days	61-90 Days	91-120 Days
Weed Abatement		X	X	X
Plant Replacement				X
Supplemental water	X	X	X	X
Erosion Control	X	X	X	X
Pest Control	X	X	X	X
Site Cleanup and Maintenance	X	X	X	X

5.0 AS-BUILT DOCUMENTATION AND REPORTING

Per CCC permit conditions, a site visit shall be conducted by the Project Biologist 30 days after the completion of installation. This visit will observe and verify the as-built conditions of the site. A brief letter report will be prepared describing condition of the container plants, note any seed germination, the condition and function of the irrigation system, BMP condition weed presence and conformance to this plan, CCC permit conditions and construction drawings and specifications. Site photos will be included.

6.0 MAINTENANCE AND MONITORING PERIOD

Maintenance activities will be conducted concurrent with the installation of the container plants and seeding, will continue throughout the initial 120-day establishment period, and conclude at the end of the maintenance and monitoring period, which is five years for the MFS site, and three years for the ruderal site. Contractor maintenance activities on the site shall be conducted to maintain the site in conformance of the established performance criteria. The Project Biologist will conduct inspections during Years One through Five. Recommendations by the Project Biologist for maintenance efforts will be based upon site observations and will include assessment of and recommendations to improve or repair project items, including those listed below. Additional maintenance visits may be recommended if interim performance criteria are not being met.

6.1 Maintenance Guidelines

Site maintenance shall occur regularly throughout the maintenance and monitoring period, as directed by the Project Biologist. A maintenance schedule is shown in Table 5. This schedule is intended to begin following the 120-day PEP (Section 4.3.4).

Table 5
Habitat Mitigation Maintenance Program Schedule
(Five Years for MFS and Three Years for Transitional Uplands)

Work Tasks[1]	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Weed Abatement			X	X	X	X	X	X	X			
Plant Replacement[2]										X	X	X
Supplemental water[3]			X	X	X	X	X	X	X	X		
Erosion Control	X	X	X	X	X	X	X	X	X	X	X	X
Resource Protection[2]	X	X	X	X	X	X	X	X	X	X	X	X
Pest Control	X	X	X	X	X	X	X	X	X	X	X	X
Site Cleanup and Maintenance	X	X	X	X	X	X	X	X	X	X	X	X

[1] Maintenance task schedule and frequency will be adjusted, as appropriate, depending on site conditions and in coordination with the Biological Monitor.
[2] As needed during the 5-year program, depending on site conditions.
[3] As needed during the first 3 years of the 5-year program, depending on site conditions.

6.1.1 Weed Control

Non-native plant control measures will include the following: (1) hand removal, (2) cutting with mechanical devices, and (3) herbicide application. Hand removal of non-natives is the most desirable method of control and will be used around individual container plant installations and seeded areas where feasible. Weeds should be pulled when plants are 6–12 inches tall or when they can be positively identified, and prior to the formation of seed heads.

The maintenance contractor should coordinate with the Project Biologist to identify weeds for removal as needed. Chemical herbicide control will be used for perennial species that are low growing and are difficult to control by hand pulling. Any herbicide treatment must be applied by a licensed pest control applicator.

6.1.2 Clearing and Trash Removal

Pruning or clearing of native vegetation will generally not be allowed within the mitigation areas, except as directed by the Project Biologist. Deadwood and leaf litter will not be removed and will be left in place. Downed branches and leaf litter provide valuable microhabitats for invertebrates, reptiles, small mammals, and birds. In addition, the decomposition of deadwood and leaf litter is essential for the replenishment of soil nutrients and minerals. Trash will be removed from the mitigation areas by hand on a regular basis. Trash consists of all anthropogenic materials, equipment, or debris dumped, thrown, washed, blown, and left within the mitigation areas.

6.1.3 Irrigation System Maintenance

Contractor maintenance shall include adjustment and repair to the temporary irrigation system. This may include repair or replacement of broken or malfunctioning components. Adjustment of the irrigation heads may be required to achieve 100% coverage. On the basis of monitoring observations, the Project Biologist may make recommendations to the contractor to increase or decrease watering time or scheduling.

6.1.4 Annual Southern Tarplant Seed Collection

The contractor shall harvest southern tarplant seed from designated existing populations annually, and distribute the seed on-site via hand broadcast methods during the maintenance and monitoring period. Timing of seed collection shall be performed in consultation with the Project Biologist under direction of OCPWD. This practice may be discontinued by recommendation of the Project Biologist if it is determined that self-sustaining southern tarplant community has established within the site.

6.2 Biological Monitoring

Monitoring will consist of qualitative field monitoring visits, and quantitative transect data collection conducted by the Project Biologist to determine initial survival rates and percent cover of native plant species. This assessment will be based on qualitative visual assessments.

Monitoring activities will include regular evaluation of weed species establishment. No plant species listed as problematic and/or invasive by the California Native Plant Society (CNPS), the

California Invasive Plant Council, or the State of California shall be allowed to naturalize or persist in the mitigation site. No plant species listed as a "noxious weed" by the State of California or the U.S. Federal Government shall be planted or allowed to naturalize or persist within the mitigation site.

Following each site visit, the Project Biologist shall generate a brief Site Observation Report, detailing the condition of the site and any maintenance and/or remedial actions recommended to keep the project on track for meeting its annual performance goals. Copies of the Site Observation Report shall be provided to OCPWD, and the contractor.

6.3 Monitoring Schedule

During the first 120 days following completion of installation, the Project Biologist shall monitor the site at 30 days (at which time the "as-built" report will be generated to CCC (per Section 4.3.4) at 90 days, and at 120 days. During the 90 day visit, the Project Biologist will do a dead container plant assessment and note individuals for replacement by the contractor. At the end of the PEP, installed plant material shall have 100% survival.

The mitigation effort should be assessed quarterly following the completion of the PEP to determine mortality of individuals, initial success of hydroseeding and efficacy of the watering program. Annual reports will be produced at the end of each calendar year (Table 6).

Table 6
Monitoring Site Visit Schedule

Year	Frequency	Annual Report
1	At 30, 90 and 120 days during the 120-Day PEP, then monthly	December
2	Quarterly	December
3	Quarterly	December
4*	Quarterly	December
5*	Quarterly	December

*MFS site only

6.4 Data Collection Methods

Monitoring will consist of qualitative field monitoring visits conducted by the Project Biologist to determine initial survival rates and percent cover of container plant species. This assessment will be based on qualitative visual assessments using relative methods. These methods will evaluate the progression of the mitigation sites in cover and vegetative structure toward non-impacted communities of the same vegetation type.

Monitoring visits during all years will be conducted to evaluate plant species survival, prescribe any necessary remedial measures, and to determine the need to continue the supplemental watering through the following year. Qualitative evaluation will assess plant mortality, compliance with intended standards, and need for plant replacements. Remedial measures will be recommended if survival rates do not meet performance criteria.

Permanent vegetation transects will be randomly established within the mitigation site at appropriate representative locations during year one. Transects will be approximately 25 meters long (or based on size and configuration of site), and sampling will utilize the point-intercept method at 0.5 meter intervals along each transect. Permanent photo-documentation stations will be established at permanent data stations to record the progress of the mitigation program and plant establishment over the maintenance and monitoring period. Vegetation sampling results will be included in the annual monitoring reports.

6.5 Performance Criteria

Performance standards based upon expected vegetative development within a properly functioning native vegetation community of the same types as occurring on site, and as negotiated with CCC (Tables 7 and 8) These performance criteria are regarded as interim project objectives designed to achieve the final mitigation goals and will be utilized to assess the annual progress of the mitigation project.

Monitoring will be conducted qualitatively by the Project Biologist to determine if the sites are meeting their criteria, with transect data collected annually. If mitigation efforts fail to meet the performance standards in any given year, the Project Biologist will recommend remedial actions to bring the site into compliance.

Table 7
Performance Standards for MFS

Year	Percent Container Plant Survival*	Maximum Percent Non-Native Plant Cover	Percent Native Plant Cover
1	100	25	20
2	90	20	40
3	80	15	50
4	80	10	60
5	80	5	70

*Natural recruitment, if present, may be counted to offset container plant mortality at the discretion of the Project Biologist.

Table 8
Performance Standards for Transitional Uplands

Year	Percent Container Plant Survival*	Maximum Percent Non-Native Plant Cover	Percent Native Plant Cover
1	100	25	20
2	90	20	30
3	80	15	65

*Natural recruitment, if present, may be counted to offset container plant mortality at the discretion of the Project Biologist.

6.6 Annual Reports

An annual biological monitoring report outlining the results of the progress of the site will be submitted to OCPWD and CCC at the end of each year on the anniversary date of completion of project installation. The monitoring reports will include the following: describe the existing conditions of the mitigation site derived from qualitative and quantitative data, provide a comparison of annual success criteria with field conditions, identify all shortcomings of the mitigation program, and recommend remedial measures necessary for the successful completion of the mitigation project. Each yearly report will provide a summary of the accumulated data.

7.0 COMPLETION OF MITIGATION

7.1 Notification of Completion

When monitoring indicates the project has met the final performance criteria for each site, OCPWD will notify the resource agencies upon submitting the last annual report. Before successful mitigation is considered to have been achieved, all native communities established will be self-sustaining without supplemental irrigation for a minimum of two years.

7.2 California Coastal Commission Confirmation

Following receipt of the notification of completion, the CCC may visit the mitigation site to confirm the completion of the mitigation effort and to verify compliance with all permit conditions.

Following the maintenance and monitoring period, the permanent fencing around the MFS site shall be maintained in good condition to delineate and protect the site.