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# F14e

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## STAFF REPORT: PERMIT AMENDMENT

**Application No.:** 5-09-071-A3

**Applicant:** City of Long Beach

**Location:** Colorado Lagoon (5119 E. Colorado Street), City of Long Beach, Los Angeles County (see [Exhibits 1 and 2](#)).

**Proposed Amendment:** Amend permit implementing the Colorado Lagoon Restoration Project to construct an open channel connecting the Lagoon to Alamitos Bay. Authorize the Executive Director to become a signatory to the mitigation bank for Colorado Lagoon.

**Staff Recommendation:** Approve permit amendment with conditions and authorize signing on to the mitigation bank.

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## SUMMARY OF STAFF RECOMMENDATION

On August 14, 2009, the Commission approved Coastal Development Permit 5-09-071 for Phase 1 of a major habitat restoration project at Colorado Lagoon, a 17.7-acre tidal lagoon that is hydrologically connected to Alamitos Bay (Marine Stadium) ([Exhibits 1 and 2](#)). The main purpose of the project was to address water quality concerns within the Lagoon. In 2015, the City began implementation of Phase 2 of the restoration project under CDP Amendment 5-09-071-A2 with the goal of improving habitat quality within the Lagoon. The proposed amendment would authorize the City to implement Phase 2A of the restoration, to create an open tidal connection between Colorado Lagoon and Marine Stadium and Alamitos Bay through the construction of an open channel through Marina Vista Park ([Exhibit 3](#)). In addition, the proposed amendment would authorize the Executive Director to become a signatory to the Colorado Lagoon Mitigation Bank.

The primary purpose of the proposed project is restoration of Colorado Lagoon. The proposed project would result in improvements to water and habitat quality, and increase the number and diversity of marine and bird species within the Lagoon. Construction of the proposed project could result in temporary adverse impacts to wetlands, coastal waters and marine resources from increased sedimentation, accidental discharges of other pollutants, noise and other construction-related impacts. To address these concerns, **Special Conditions 1-9, 11 and 12** include requirements the City must implement during construction of the open channel that ensure any impacts to coastal resources are temporary and insignificant. These conditions include: 1) staging and construction best management practices to minimize adverse environmental impacts, 2) pre- and post-construction surveys of eelgrass and implementation of mitigation if construction results in permanent impacts, 3) pre-construction surveys and biological monitoring during construction to protect sensitive habitat areas and special-status species, and 4) implementation of erosion control measures during construction and introduction of tidal flows into the open channel. To ensure that the restoration work is successful in improving marine resources and water quality at Colorado Lagoon over the long term, **Special Conditions 13 and 14** require the City to monitor water quality, biological, and physical parameters throughout the Lagoon and open channel to ensure that ecological restoration goals are achieved. Finally, **Special Condition 10** restricts future development to ensure that the benefits provided by the proposed restoration work are continued into the future.

In addition, the City seeks to establish a mitigation bank at Colorado Lagoon. Commission staff has worked with the City and other federal agency staff for approximately five years to develop components of the bank, including performance criteria, monitoring protocols and a credit release schedule that addresses the regulatory mitigation needs of both the U.S. Army Corps of Engineers and the Commission. As part of the proposed permit amendment, the City seeks the Commission's concurrence that the bank is structured in a manner that is consistent with mitigation requirements under the Coastal Act.

Commission staff recommends that the Commission approve the proposed permit amendment and authorize the Executive Director to become a signatory to the Colorado Lagoon Mitigation Banking Instrument. The **motions** to implement this recommendation are found on **Page 4**.

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[Appendix A – Substantive File Documents](#)

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## EXHIBITS

Exhibit 1 – General Vicinity Map

Exhibit 2 – Map of Colorado Lagoon

Exhibit 3 – Phase 2A – Bank Credits and Conceptual Design of Open Chanel

Exhibit 4 – Phase 2B – Bank Credits

Exhibit 5 – Summary Matrix for Colorado Lagoon Restoration Activities

Exhibit 6 – Phase 2A – Project Phasing, Staging and Stockpiling

Exhibit 7 – Box Bridge Design – Colorado Street

Exhibit 8 - Box Bridge Design – Eliot Street

Exhibit 9 – Artist Rendering of Colorado Lagoon

Exhibit 10 – Mitigation Bank Service Area

Exhibit 11 – Mitigation Bank Performance Standards

Exhibit 12 – Mitigation Bank Monitoring Parameters

Exhibit 13 - Mitigation Bank Credit Summary

## **I. MOTIONS AND RESOLUTIONS**

### **1. Coastal Development Permit Amendment**

**Motion:**

*I move that the Commission **approve** the proposed amendment to Coastal Development Permit No. 5-09-071-A3 pursuant to the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in conditional approval of the permit amendment and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

**Resolution:**

*The Commission hereby approves Coastal Development Permit Amendment 5-09-071-A3 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.*

### **2. Mitigation Bank**

**Motion:**

*I move that the Commission authorize the Executive Director to become a signatory to the Colorado Lagoon Mitigation Bank as described in the staff report and included as Appendix B, dated January 24, 2019.*

Staff recommends a **YES** vote on the motion. Passage of this motion will result in authorization of the Executive Director to sign the Bank Enabling Instrument for the Colorado Lagoon Mitigation Bank. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

**Resolution:**

*The Commission hereby authorizes the Executive Director to become a signatory to the Colorado Lagoon Mitigation Bank as described in the staff report and included as Appendix B, dated January 24, 2019.*

## I. STANDARD CONDITIONS

This permit amendment is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittees or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittees to bind all future owners and possessors of the subject property to the terms and conditions.

## III. SPECIAL CONDITIONS

**Note:** All special conditions attached to Coastal Development Permit No. 5-09-071, as amended, are listed below. The special conditions of Coastal Development Permit 5-09-071, which include conditions 1 – 8, are unchanged and remain in effect on this permit amendment, except as modified below, shown in strikeout/underline. New special conditions (numbers 9 - 15) are being imposed as a result of this amendment to the permit, as described below.

1. **Protection of Marine Resources.** The permittee shall implement the following project staging and construction best management practices in order to minimize adverse environmental impacts and the unpermitted deposition, spill or discharge of any liquid or solid into Colorado Lagoon or Alamitos Bay:
  - A. During dredging, clams and other native mollusks shall be relocated to another part of the lagoon when possible.
  - B. Netting, sandbags, tarps and/or other forms of barriers shall be installed between the water and work areas and equipment storage areas to prevent any unpermitted material from entering Colorado Lagoon or Alamitos Bay.

- C. Floating booms shall be maintained around the coffer dams and pier construction in order to capture floating debris during all demolition and construction phases.
- D. Machinery or construction materials not essential for project improvements are prohibited at all times in the subtidal or intertidal zones.
- E. If turbid conditions are generated during dredging and construction, silt curtains shall be utilized to control turbidity.
- F. The storage or stockpiling of soil, silt, other organic or earthen materials, or any materials and chemicals related to the construction shall not occur where such materials/chemicals could pass into the waters of Colorado Lagoon or Alamitos Bay. Stockpiled fill shall be stabilized with geofabric covers or other appropriate cover.
- G. 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. Disposal within the coastal zone shall require a coastal development permit.
- H. Construction vehicles operating at the project site shall be inspected daily to ensure there are no leaking fluids. If there are leaking fluids, the construction vehicles shall be serviced immediately. Equipment and machinery shall be serviced, maintained and washed only in confined areas specifically designed to control runoff and prevent discharges into Colorado Lagoon or Alamitos Bay. Thinners, oils or solvents shall not be discharged into sanitary or storm sewer systems.
- I. Washout from concrete trucks shall be disposed of at a location not subject to runoff and more than fifty feet away from all storm drains, open ditches and surface waters.
- J. All floatable debris and trash generated by construction activities within the project area shall be disposed of as soon as possible or at the end of each day.
- K. 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.
- L. 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.
- M. The permittee shall dispose of all demolition and construction debris resulting from the proposed project 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.

The permittee shall include the requirements of this condition on all plans and contracts issued for the project. The permittee shall implement and carry out the project staging and construction plan during all construction, staging and cleaning activities.

**2. Eelgrass Survey and Mitigation Plan.**

- A. Pre Construction Eelgrass Survey. Prior to commencement of any disturbance of the lagoon intertidal or subtidal areas authorized under this coastal development permit, a valid pre-construction eelgrass (*Zostera marina*) survey shall be completed during the period of active growth of eelgrass (typically March through October). The pre-construction survey shall be completed prior to the beginning of dredging and pier construction and shall be valid until the next period of active growth. The survey shall be prepared in full compliance with the “~~Southern~~ California Eelgrass Mitigation Policy” ~~Revision 8~~ (except as modified by this special condition) adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and ~~Game~~ Wildlife. The permittee shall submit the eelgrass survey for the review and approval of the Executive Director within five (5) business days of completion of each eelgrass survey and in any event no later than fifteen (15) business days prior to commencement of any disturbance of the lagoon intertidal or subtidal areas.
  
- B. Post Construction Eelgrass Survey. If any eelgrass is identified in the project area by the survey required in Section A of this condition above, within one month after the conclusion of construction, the permittee shall survey the project site to determine if any eelgrass was adversely impacted. The survey shall be prepared in full compliance with the “~~Southern~~ California Eelgrass Mitigation Policy” Revision 8 (except as modified by this special condition) adopted by the National Marine Fisheries Service and shall be prepared in consultation with the California Department of Fish and Game. The permittee shall submit the post-construction eelgrass survey for the review and approval of the Executive Director within thirty (30) days after completion of the survey. If any eelgrass has been impacted, the permittee shall replace the impacted eelgrass at a minimum 1.238:1 ratio on-site, or at another location in Alamitos Bay, in accordance with the Southern California Eelgrass Mitigation Policy. All impacts to eelgrass habitat shall be mitigated at a minimum ratio of 1.2:1 (mitigation:impact). The exceptions to the required 1.238:1 mitigation ratio found within ~~SCEMP~~ shall not apply. Implementation of mitigation shall require an amendment to this permit or a new coastal development permit unless the Executive Director determines that no amendment or new permit is required.

**3. Caulerpa Taxifolia (Toxic Algae) Pre-Construction Survey.**

- A. Not earlier than 90 days nor later than 30 days prior to commencement or re-

commencement of any disturbance of the lagoon intertidal or subtidal areas authorized under this coastal development permit, the permittee shall undertake a survey of the project area and a buffer area at least ten meters beyond the project area to determine the presence of the invasive alga *Caulerpa taxifolia*. The survey shall include a visual examination of the substrate.

- B. The survey protocol shall be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Game, and the National Marine Fisheries Service.
  - C. Within five (5) business days of completion of the survey, the permittee shall submit the survey for the review and approval of the Executive Director; and to the Surveillance Subcommittee of the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through William Paznokas, California Department of Fish & Game (858/467-4218) or Robert Hoffman, National Marine Fisheries Service (562/980-4043).
  - D. If *Caulerpa taxifolia* is found within the project or buffer areas, the permittee shall not proceed with the project until 1) the permittee provides evidence to the Executive Director that all *C. taxifolia* discovered within the project and/or buffer area has been eliminated in a manner that complies with all applicable governmental approval requirements, including but not limited to those of the California Coastal Act, or 2) the permittee has revised the project to avoid any contact with *C. taxifolia*. No revisions to the project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.
4. **Timber Treatment.** Wood treated with Creosote, CCA (Chromated Copper Arsenate), ACA (Ammoniacal Copper Arsenate) or ACZA (Ammoniacal Copper Zinc Arsenate) is prohibited. Treated timber shall be free of chromium and arsenic and completely sealed in epoxy resin. No exposed wood shall be used where it could come into contact with the water.
5. **Dredge Spoils.** Dredge spoils suitable for beach replenishment shall be transported for such purposes to appropriate beaches. The permittee shall test the dredge spoils to determine if they are suitable for beach nourishment, and shall provide the test results for the review and approval of the Executive Director within five days after testing. The placement of suitable sand on City beaches is authorized pursuant to the terms of Coastal Development Permit 5-08-356 (City of Long Beach).
6. **Landscaping Plan.** The permittee shall conduct all landscaping consistent with the terms of this condition:
- A. Prior to the removal of non-native vegetation, a qualified biologist shall survey the project site and identify with flags all areas of existing native vegetation. The permittee shall ensure that the areas of existing native vegetation, except for those



areas where re-contouring or public access improvements are permitted, are protected from disturbance during the implementation of the approved project, and that adequate water is provided to keep the plants healthy. Native vegetation that is removed from the areas where disturbance is permitted shall be transplanted elsewhere within the project area.

- B. Prior to weed abatement and removal of any plant material, a qualified biologist or ornithologist shall survey the project site to detect bird nests and submit a survey report to the permittee and the Executive Director of the Coastal Commission. The survey report shall include identification of all known nests. The permittee shall maintain a database of survey reports that includes a record of nests that is available as public information and to be used for future vegetation removal decisions. No bird nests shall be disturbed. Weed abatement and removal of any plant material may not proceed within 300 feet (500 feet for raptors) of a nest where evidence of courtship or nesting behavior is observed. In the event that any birds continue to occupy nests during the non-nesting season, work shall not take place until a qualified biologist or ornithologist has assessed the site, determined that courtship behavior has ceased, and given approval to proceed within 300 feet (500 feet for raptors) of any nest.
- C. Erosion Control. Prior to removing the non-native plants and preparation of the soil, the permittee shall install silt curtains along the entire length of the water's edge to prevent siltation of the lagoon. Jute matting (with no plastic netting) shall be placed on all slopes immediately following the removal of the existing plant cover. In addition, the permittee shall implement the following temporary erosion control measures during the restoration project: temporary sediment basins (including debris basins, desilting basins or silt traps), temporary drains and swales, sand bag barriers, and additional silt fencing as needed
- D. All vegetation planted on the site will consist of native plants typically found on the banks of Alamitos Bay and the Los Cerritos Wetlands. As much as possible, the seeds and cuttings employed shall be from local sources adjacent to Alamitos Bay and the Los Cerritos Wetlands.
- E. No plant species listed as problematic and/or invasive by the California Native Plant Society (<http://www.CNPS.org/>), the California Invasive Plant Council (formerly the California Exotic Pest Plant Council) (<http://www.cal-ipc.org/>), 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 utilized within the property.
- F. Re-vegetation shall commence as soon as possible following removal of the existing vegetation and preparation of the soil. The existing native vegetation and all required plantings shall be maintained in good growing condition throughout the life of the project, and whenever necessary, shall be replaced with new plant

materials to ensure continued compliance with the landscape plan. Re-vegetation activities may continue during the least tern nesting season.

- G. Planting shall maintain views of the water from the public areas.
- H. Monitoring. The permittee shall actively monitor the site, remove non-natives and reinstall plants that have failed for at least five years following the initial planting. The permittee will monitor and inspect the site no less than once each thirty days during the first year that follows the initial planting. Thereafter, the permittee will monitor the site at least once every ninety days or on the City's regular landscape maintenance schedule, whichever is more frequent.

The permittee shall undertake the approved development in accordance with this condition and the final plans approved by the Executive Director. To ensure compliance, the permittee shall include the requirements of this condition on all plans and contracts issued for the project. 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.

- 7. **Tree Trimming and Maintenance of Colorado Lagoon Park.** Tree trimming, non-native tree removal, and ongoing maintenance of Colorado Lagoon Park shall be conducted consistent with the terms of this condition in order to ensure the protection of wildlife habitat and the long-term protection of breeding, roosting, and nesting habitat of state and federally listed bird species, California bird species of special concern, and bird species that play an especially valuable role in the ecosystem.
  - A. Tree trimming and non-native tree removal shall take place only outside of bird breeding and nesting season, which is January 1 through September 30.
  - B. The trimming or removal of any tree that has been used for breeding and nesting within the past five years is prohibited. Prior to tree trimming or removal of any tree, a qualified biologist or ornithologist shall survey the trees to be trimmed or removed to detect nests and submit a survey report to the permittee, a representative of the Audubon Society, and the Executive Director of the Coastal Commission. The survey report shall include identification of all trees with nests. The permittee shall maintain a database of survey reports that includes a record of nesting trees that is available as public information and to be used for future tree trimming and removal decisions.
  - C. No bird nests shall be disturbed. Trimming may not proceed if a nest is found and evidence of courtship or nesting behavior is observed at the site. In the event that any birds continue to occupy trees during the non-nesting season, trimming shall not take place until a qualified biologist or ornithologist has assessed the site, determined that courtship behavior has ceased, and given approval to proceed within 300 feet of any occupied tree.

- D. No California native trees shall be removed. All existing native vegetation shall be protected.
8. **Conformance with the Requirements of the Resource Agencies.** The permittee shall comply with all requirements, requests and mitigation measures from the California Department of Fish and Wildlife, 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. 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.
9. **Final Plans for Open Channel.**
- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT AMENDMENT, the Applicant shall submit to the Executive Director for review and written approval one set of final plans for the channel connecting Colorado Lagoon with Alamitos Bay, that conforms with the conceptual Plans submitted to the Commission with the CDP amendment application in July 2017. The Plans shall include a Planting plan for the surrounding habitat areas, including a native tree and plant palette.
  - B. The permittee shall undertake development in conformance with the approved final plans unless the Commission amends this permit or the Executive Director provides a written determination that no amendment is legally required for any proposed minor deviations.
10. **Development Restrictions** No development, as defined in Section 30106 of the Coastal Act, shall occur within Colorado Lagoon, the channel connecting the Lagoon to Marine Stadium, and the surrounding habitat areas approved for restoration under this permit, as depicted on [Exhibits 3 and 4](#), except for:
- A. Restoration construction work, including construction of channel and surrounding habitat, construction of the channel road crossings, connection of the channel to the Lagoon and Marine Stadium, and implementation of pollution prevention measures, approved under Special Conditions 1 and 12.
  - B. Habitat monitoring activities described in the Colorado Lagoon Mitigation Bank Enabling Instrument.
  - C. Interim and long term habitat management activities described in the Colorado Lagoon Mitigation Bank Enabling Instrument.
  - D. Adaptive Management Activities approved by the USACE and the Interagency Review Team.
  - E. Invasive plant removal and other restoration maintenance activities as described in the Colorado Lagoon Mitigation Bank Enabling Instrument.
  - F. Fence maintenance and repair activities.

- G. Maintenance of the public access trail and over-water walk bridge
- H. Erection and maintenance of public access signage
- I. Annual installation, maintenance and removal of up to nine floating Christmas Trees within the Lagoon during the winter months
- J. Maintenance of the recreational beach and swimming area on the south shore
- K. Maintenance of existing improvements including the lifeguard building, wetlands/marine science center, restroom buildings, roadways, underground and above-ground utilities, storm drain outlets and appurtenances, playground equipment, picnic table and benches, and swimming area buoy markers
- L. Maintenance of Naples seawall mitigation habitat areas (not part of Mitigation Bank)
- M. Maintenance of Alamitos Heights Park and Marine Stadium Park
- N. Any remedial action required by the Commission or another state or federal agency to ensure the restored area meets mitigation requirements.

11. **Construction Monitoring.** PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT AMENDMENT, the Applicant shall submit to the Executive Director for review and written approval a Construction Monitoring Plan for construction of the open channel. The purpose of the Plan is to document biological resources at the site, including wetlands, sensitive habitat areas and special-status species, provide for biological monitoring during construction, and document wetlands and other tidal habitat before and after construction to verify that any impacts to these resources are temporary.

- A. Pre-Construction Surveys. NO MORE THAN 60 DAYS PRIOR TO THE COMMENCEMENT OF PROJECT ACTIVITIES AT A GIVEN SITE, pre-construction surveys shall be conducted by a qualified biologist approved by the Executive Director for special-status plant and wildlife species and nesting birds protected under the Migratory Bird Treaty Act and California Fish and Wildlife Code section 3503 and to document the boundaries of existing wetlands, tidal habitats and other sensitive habitat areas in the vicinity of the open channel identified by the biologist. Surveys shall incorporate the following:
  - i. Appropriate survey methods and timeframes shall be established by the consulting qualified biologist and described in the Plan.
  - ii. Pre-construction eelgrass and Caulerpa Taxifolia surveys as required in Special Conditions 2 and 3, respectively.
  - iii. If work on a project site ceases for a period of 30 days or more, a new pre-construction survey shall be conducted prior to continuing with construction or decommissioning activities.
  - iv. Pre-construction surveys for special-status species shall target estuary seablite, brown pelican, California least terns, tiger beetles, fiddler crabs, and monarch butterflies. If these or any other listed species are encountered, the Permittee shall consult with the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW) and the Executive Director before continuing with work.
  - v. NO MORE THAN 15 DAYS AFTER COMPLETION OF THE SURVEY, a pre-construction survey report shall be submitted to the Executive Director for review and written approval. The report shall

include the site plan, a narrative description of each site and work area, results of the survey including species richness and percent cover and acreage of wetlands and/or rare species. The report shall also include the results of the eelgrass and *Caulerpa Taxifolia* surveys. The report shall also include a description of the potential impacts that will occur from the proposed work including impacts associated with connecting the channel to the Lagoon and to Marine Stadium, ingress and egress, excavation, and/or re-contouring and whether the impacts will likely be temporary or permanent. Any area of wetland excavated or re-contoured will be considered to be a permanent impact. The report shall also describe avoidance measures that will be implemented for wetlands or rare species and a list of any additional recommended mitigation measures or monitoring protocols.

- B. Biological Monitoring. The Permittee shall employ or have under contract a biologist(s) approved by the Executive Director, during the duration of approved construction of the open channel. The Permittee shall ensure that the biologist(s) conduct monitoring during any project activities involving mobilization, ground disturbance, grading, soil movement, or any other activities that could affect biological resources including special-status species, wetlands, coastal waters and marine species in accordance with the following:
- i. Based on results of the pre-construction survey required in part (a) above, the biologist shall clearly mark all sensitive biological resources located within 25 feet of any project-related activity. The biologist shall maintain a 10-foot buffer around any individual special-status plant unless otherwise approved in this permit or by the Executive Director under part (a).
  - ii. Conduct worker training with all project-related personnel to identify the location and types of sensitive biological resources on and near the project site and the measures to be taken to avoid impacts to these resources
  - iii. Implement requirements of Special Condition 1 to ensure impacts to special-status species, wetlands, and coastal waters are minimized.
  - iv. The biologist(s) shall require a halt to any project activities when he or she determines that continuing the activities would result in an unauthorized adverse impact to coastal waters, wetlands, and other biological resources. The biologist(s) shall inform the Permittee what measures are needed to address the impact and may allow activities to resume after necessary measures are implemented.
  - v. A summary report, including monitoring results and avoidance measures implemented shall be submitted to the Executive Director within 60 days of the conclusion of construction activities.
  - vi. If biological monitoring results indicate fill or dredging or any other adverse impacts to any wetland area, marine waters or sensitive biological resources that are not approved under this permit, the Permittee shall submit an application to amend this permit to address these impacts and fully restore any disturbed wetlands or sensitive biological resources to its

pre-project condition, unless the Executive Director determines that no such permit amendment is legally required.

- C. Nesting Birds. All construction shall be avoided, to the greatest extent possible, during the southern California bird nesting season which is January 15 through September 15. If construction must occur during this time, NO MORE THAN 14 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES, a qualified biologist, approved by the Executive Director, shall conduct a pre-construction survey for the presence of nesting birds. If an active nest of any bird including a Federal or State-listed threatened or endangered bird species, bird species of special concern, or any species of raptor is identified during such preconstruction surveys, or is otherwise identified during construction, the Permittee shall notify all appropriate State and Federal agencies within 24 hours, and shall develop an appropriate action plan specific to each incident that shall be consistent with any recommendations of those agencies. The Permittee shall notify the Executive Director in writing within 24 hours of identifying such a nest and consult with the Executive Director regarding the determinations of the State and Federal agencies. At a minimum, if the active nest is located within 300 feet of construction activities (within 500 feet for raptors), the Permittee must ensure that noise levels do not exceed 65 dB at the nest and that nesting birds are not disturbed by construction-related activities, and shall submit a plan to the Executive Director, for review and written approval, demonstrating how construction activities will be modified to avoid, minimize and mitigate impacts to nesting birds, including, but not limited to, such measures as buffer zones around nests, sound blocking BMPs, limits on duration of construction activities, and limits on the location of construction-related machinery and activity. If construction activity noise levels exceed a peak of 65 dB at the nest site(s), sound mitigation measures such as sound shields, blankets around smaller equipment, use of mufflers, and minimizing the use of back-up alarms shall be employed. If these sound mitigation measures do not reduce noise levels, construction within 300 ft. (500 ft. for raptors) of the nesting areas shall cease and shall not commence again until either new sound mitigation can be employed or until the nest(s) is vacated, juveniles have fledged and there is no second attempt at nesting.

12. **Pollution Prevention Plan for Construction of the Open Channel.** PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT AMENDMENT, the Applicant shall submit to the Executive Director for review and written approval a Pollution Prevention Plan (PPP) for Construction of the Open Channel. The Plan shall describe how the newly constructed channel will be connected to the Lagoon and to Marine Stadium and what measures shall be in place to ensure that the habitat and water quality within the Lagoon and Marine Stadium is not adversely affected during or after the channel is connected. The Plan shall include the following components:
- A. A detailed methodology and timeline for excavation of the earthen channel around the existing culvert, breaching of the culvert once the channel is constructed and introducing tidal flows through the newly constructed channel.
  - B. A staging plan, including types and locations of equipment, stockpiles, and proposed travel routes for construction equipment entering and exiting the project area.

- C. A description of all sediment control measures to be implemented before, during and after the channel is constructed and tidal flows are introduced into the channel. The Plan should include a site plan map indicating the location of all measures. These measures shall include the following:
- i. Silt fences, silt curtains, coffer dams and/or other sediment control devices shall be deployed near the connection points to the Lagoon and to Marine Stadium to prevent any sediment from flowing into the Lagoon. If the silt fences or other measures are not adequately containing sediment, construction activity shall cease until remedial measures are implemented that prevents sediment from entering the Lagoon waters.
  - ii. Sediment sources shall be controlled using fiber rolls, silt fences, sediment basins, and/or check dams that shall be installed prior to or during grading activities and removed once the site has stabilized.
  - iii. Erosion control may include seeding, mulching, erosion control blankets, silt fences, plastic coverings, and geotextiles that shall be implemented after completion of construction activities.
  - iv. The use of erosion and sediment control products (such as fiber rolls, erosion control blankets, mulch control netting, and silt fences) that incorporate plastic netting (such as polypropylene, nylon, polyethylene, polyester, or other synthetic fibers) is prohibited in order to minimize wildlife entanglement and plastic debris pollution.
  - v. Appropriate energy dissipation devices shall be used to reduce or prevent erosion as tidal flows are introduced into newly restored areas.
- D. A detailed monitoring plan that includes protocols for:
- i. Baseline water quality monitoring. The Permittee shall conduct monitoring of baseline conditions in the Lagoon and the northwestern end of Marine Stadium, including turbidity, pH, temperature, dissolved oxygen and other appropriate water quality parameters. Monitoring shall be conducted at different points in the tidal cycle and over a sufficient time period to adequately characterize the variability in baseline water quality conditions in the Lagoon and Marine Stadium.
  - ii. Monitoring of turbidity, pH, temperature, dissolved oxygen and other appropriate water quality parameters in Colorado Lagoon, Marine Stadium, and the newly created channel immediately before, during and after tidal flows are introduced into the new channel. Monitoring shall continue throughout the site stabilization period or until water quality parameters return to baseline conditions to ensure that water quality in the Lagoon and Marine Stadium is not being degraded. The Plan shall identify thresholds for turbidity and other water quality parameters such that waters with measurements of turbidity and/or other parameters exceeding a threshold that could result in adverse impacts to marine organisms shall be contained and prevented from being discharged into receiving waters. The Plan shall also identify monitoring protocols. The turbidity and other water quality thresholds shall be developed in consultation with the RWQCB and explained in the Plan. If sediment is not being contained adequately, as determined by visual observation or

turbidity measurements, the activity shall cease until corrective measures are taken to remedy the situation.

- E. A description of remedial actions that can be taken immediately by the Permittee if monitoring results indicate that water quality parameters are on a trajectory to exceed established thresholds or have exceeded established thresholds.
- F. If monitoring results indicate that water quality thresholds in Colorado Lagoon are exceeded, the Permittee shall immediately stabilize the site, stop work, and notify the Executive Director. After consulting with the Executive Director, the Permittee shall implement remedial measures and continue monitoring all water quality parameters. Before continuing work, the Permittee shall submit a Supplemental Pollution Prevention Plan for Construction of the Open Channel to the Executive Director for review and written approval describing what project-related activities lead to the exceedance, what sediment control measures were in place, what remedial measures were implemented after the exceedance was discovered and what measures will be implemented in the future to ensure another exceedance is avoided.
- G. The Permittee shall submit a Final Report within 60 days of the completion of monitoring activities associated with introducing tidal flows through the newly constructed open channel. The report shall include a description of all related construction activities and sediment control measures, results of all monitoring activities, and a detailed discussion of any water quality parameter exceedances.

The Permittee shall undertake development in conformance with the approved plans unless the Commission amends this permit or the Executive Director provides a written determination that no amendment is legally required.

- 13. **Colorado Lagoon Post-Construction Monitoring Plan.** The Permittee shall implement the monitoring program as described in Exhibit D of the Bank Enabling Instrument for the Colorado Lagoon Mitigation Bank (Appendix B).
- 14. **Colorado Lagoon Central Basin Monitoring Plan.** PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT AMENDMENT, the Applicant shall submit to the Executive Director for review and written approval a Colorado Lagoon Central Basin Monitoring Plan. The Plan shall describe monitoring protocols, thresholds and remedial actions to ensure that water quality in the central portion of the Lagoon, especially in the deeper areas is maintained. The Plan shall include the following components:
  - A. Monitoring protocols for monitoring of water quality parameters including dissolved oxygen (DO) and temperature, infaunal and macro-epifaunal invertebrates and cover of macro-algae on the bottom of the central portion of the Lagoon. The Plan should also include a map of proposed monitoring locations and a justification for placement of these locations.
  - B. Monitoring of invertebrates shall include multiple sampling locations within the subtidal portion of the Lagoon and may include locations outside of the central basin.



- B. A schedule of monitoring activities that describes the frequency of monitoring and analysis for water quality parameters, benthic invertebrates and macro-algae during the interim management period and the long term management period.
- C. Thresholds for each monitoring parameter that indicate good, fair, and poor water quality.
- D. Description of remedial measures if monitoring results indicate fair and/or poor water quality.
- E. Provisions for submittal of an annual report that describes monitoring activities, monitoring results and recommended remedial measures if necessary.
- F. If monitoring results indicate that, based on a minimum of 5 years of data, conditions on the bottom of the central Lagoon are not resulting in water quality or habitat quality concerns, the Permittee may submit a revised Colorado Lagoon Central Basin Monitoring Plan to the Executive Director for review and written approval that includes a reduced level of monitoring and triggers for reinstating full monitoring.
- F. If monitoring results indicate that water quality in the deep portion of the Lagoon is having an adverse effect on water quality in the rest of the Lagoon and/or populations of fish, invertebrates or other Lagoon wildlife and/or is preventing the Lagoon from meeting performance criteria described in Exhibit C of the Bank Enabling Instrument for the Colorado Lagoon Mitigation Bank , the Permittee shall, upon request of the Executive Director, submit a Remedial Action Plan to the Executive Director for review and approval that describes remedial measures the Permittee will take to address the water quality and/or habitat concerns.

## **IV FINDINGS AND DECLARATIONS**

### **A. BACKGROUND AND PERMIT HISTORY**

Colorado Lagoon, which was historically part of the Los Cerritos Wetlands, is a 17.7-acre tidal lagoon that is connected to Alamitos Bay (Marine Stadium) through a 933-foot long underground tidal culvert ([Exhibits 1 and 2](#)). The Lagoon is listed as an impaired water body pursuant to the Clean Water Act as a result of elevated levels of lead, zinc, chlordane, and polycyclic aromatic hydrocarbons (PAHs) in the sediment, and chlordane, dichloro-diphenyl-trichloroethane (DDT), dieldrin, and polychlorinated biphenyls (PCBs) in fish and mussel tissue. Bacterial contamination of the lagoon water is also a continuing problem that has adversely affected recreational activities. The Lagoon is surrounded by 18.5 acres of public parkland managed by the City of Long Beach.

On August 14, 2009, the Commission approved Coastal Development Permit 5-09-071 for Phase 1 of a major habitat restoration project at Colorado Lagoon. The permit approved: 1) dredging and removal of 32,500 cubic yards of sediment, 2) re-contouring the lagoon banks, 3) diversion of low-flows from storm drains into the sanitary sewer, 4) installation of trash collection devices in three major storm drains, 5) creation of two vegetated bioswales between the water and the adjacent golf course, 6) clearing of the tidal culvert connecting the Lagoon to Alamitos Bay, 7) demolition of the northern paved parking lot, access road and restroom, 8) re-vegetating the

former parking area and lagoon banks with native plants, 9) construction of public access trails, and 10) construction of a 135-foot long observation pier with thirty piles (to replace the existing pier).

The City vested the coastal development permit in November 2009 when it constructed a vegetated bioswale near the western arm of the Lagoon. In November 2010, the City constructed the low-flows diversion system and cleared the tidal culvert that connects the Lagoon to Alamitos Bay. The permit was amended (5-09-071-A1) on September 7, 2011 to increase the amount of authorized dredging from 32,500 cubic yards of sediment to 72,000 cubic yards of sediment. The increase in dredging was required to meet water and sediment quality standards set by the State Water Resources Control Board pursuant to the requirements of the Clean Water Act. The City completed the dredging in October 2012, re-using the dredged material at the Middle Harbor Development within the Port of Long Beach.

With the completion of Phase 1 of the Colorado Lagoon Restoration Project, the City shifted to implementation of Phase 2 of the Project. Phase 2 includes two components: Phase 2A, which involves the construction of an open channel connecting the Lagoon and Alamitos Bay and is the subject of this CDP amendment, and Phase 2B, which involves additional restoration work within the Lagoon. The City opted to pursue Phase 2B first. In 2013, the Commission approved CDP 5-11-085, authorizing the Naples island Seawall Repair Project. That permit included a mitigation program at Colorado Lagoon to mitigate the loss of soft-bottom habitat resulting from the proposed project. This mitigation program partially completed Phase 2B of the Colorado Lagoon Restoration Project by re-contouring the northern portion of the Central Lagoon to establish a minimum of 20,908 square feet of new soft bottom habitat. The City used material excavated from the banks of the northern portion of the Lagoon to reduce the depth in both the western and northern arms of the Lagoon, thus making these areas more conducive to eelgrass growth (i.e., shallower depth allows more sunlight to reach the bottom) ([Exhibit 4](#)).

In 2015, the Commission granted the City a second amendment to the original permit (5-09-071-A2) for additional work under Phase 2B of the Colorado Lagoon Restoration Project. This amendment authorized the extension of a pedestrian foot bridge over the western arm of the Lagoon, additional eelgrass transplant into the western and northern arms of the Lagoon, fence replacement, removal of non-native trees and planting of native trees, and electric line and associated infrastructure relocation. The amendment request also changed the approved project to eliminate a 135-foot long observation pier with thirty 12-inch steel piles which was authorized by the underlying permit but never constructed. [Exhibit 5](#) is a matrix which details development completed during each phase of the restoration, as described above.

Work associated with Phase 2B of the Colorado Lagoon Restoration Project was completed in May 2017.

## **B. PROPOSED AMENDMENT**

With this amendment, the City proposes implement Phase 2A of the Colorado Lagoon Restoration Project to create an open tidal connection between Colorado Lagoon and Marine Stadium and Alamitos Bay through the construction of an open channel through Marina

Vista Park ([Exhibit 3](#)). The open channel would replace the existing underground culvert that currently connects the two water bodies. Prior to the construction of the channel, the City would first relocate the utilities that run along Colorado and Eliot Streets and construct temporary roadways within the Park ([Exhibit 6](#)). The City would then install a series of three pre-cast, reinforced concrete box culverts under each of the two road crossings ([Exhibits 7 and 8](#)). The box culverts would be built around the existing culvert to maintain the existing tidal connection between the Lagoon and Marine Stadium during construction, but the City would demolish the existing culvert once the new channel is completed. Once the culverts are installed, the City would construct the bridge approaches and related retaining walls. Finally, to construct the channel, the City would excavate approximately 70,000 cubic yards of material within the Park to create the channel and lower the existing elevations within Marina Vista Park to create wetland areas adjacent to the channel. The channel would stretch approximately 1,160 feet and would have an earthen bottom, except under the roads where the channel may have concrete sides and rock riprap slope protection. Approximately 23,000 cubic yards of suitable excavated soils would be used to regrade portions of Marina Vista Park. To address concerns with the existing depth of the Lagoon, the City proposes to use approximately 10,000 cubic yards to fill the central Lagoon, bringing it to an elevation of -15 feet NGVD29 (-12.2 feet MLLW). The remaining 36,000 cubic yards of material would be re-used for other City or Port of Long Beach construction projects or disposed of at an appropriate landfill. The City estimates it would require approximately 2,571 truck trips to remove the material from the construction site.

In addition, the City proposes to complete improvements to Marina Vista Park, including rearranging existing sport fields, constructing a walking trail at the upland border between the channel and surrounding wetland areas and Marina Vista Park, removing non-native vegetation and planting native vegetation and improving the existing irrigation systems ([Exhibit 9](#)). Existing uses would be retained and improved at the Park, including a softball/kickball field, soccer fields, and a youth baseball field. In addition to these uses, the Park would remain a passive turf greenway. The City proposes to remove 23 ornamental trees and plant native trees in the western portion of the Park. Salt marsh vegetation would be planted within the intertidal areas, and native upland species would be used to vegetate the upland and buffer areas adjacent to the channel. The walking trail on the east side of the channel would be constructed of impermeable colored granite to allow access for maintenance and safety vehicles in addition to pedestrian traffic.

Construction activities would take approximately 22.5 months and would be carried out in a manner that maintains traffic through the project area, existing utilities, and continued tidal connection between Colorado Lagoon and Marine Stadium. Soil stockpiles would be located within the construction area

### **C. PROPOSED COLORADO LAGOON MITIGATION BANK**

The City seeks to establish a mitigation bank at Colorado Lagoon consistent with the USACE's regulations governing compensatory mitigation. The USACE's regulations, also called the "Mitigation Rule," were issued in 2008 and revised in 2015 (Title 33 C.F.R. parts 325 and 332). In addition to providing mitigation for activities regulated by the USACE, the City also intends

for the bank to be able to provide mitigation for Coastal Act impacts. Thus, the City seeks the Commission's concurrence that the bank is structured in a manner that is consistent with mitigation requirements under the Coastal Act. Appendix B includes the Bank Enabling Instrument (BEI) for the Colorado Lagoon Mitigation Bank, which sets forth the establishment, use, operation, and maintenance of the bank. Should the Commission concur that the BEI is consistent with mitigation requirements under the Coastal Act, the second motion and resolution included in Section I of the staff report (page 4 above) would authorize the Commission's Executive Director to become a signatory to the Bank. Becoming a signatory to the bank would facilitate use of the bank by future applicants to mitigate Coastal Act impacts but does not pre-authorize or pre-approve the use of the bank for future mitigation. The Commission would make project-specific decisions about mitigation, and specifically, about whether to approve the purchase of credits at this mitigation bank, on a case-by-case basis.

For the past five years, Commission staff participated, along with scientists from the Environmental Protection Agency, NOAA National Marine Fisheries Service, and Cal State Long Beach, on an Interagency Review Team (IRT) that worked with the USACE and the City to develop the various components of the bank. Throughout the bank development process, Commission staff collaborated with the other agencies to ensure that the bank was designed to address the regulatory mitigation needs of both the USACE and the Commission. This included developing performance criteria, monitoring protocols and a credit release schedule that all agencies could agree to. These components of the Colorado Lagoon Mitigation Bank are discussed in more detail below:

### **Development Plan**

The Colorado Lagoon Mitigation Bank establishes compensatory mitigation credits associated with the Phase 2A and Phase 2B of the Colorado Lagoon Restoration Project. As described in Section A above, the restoration work associated with completing Phase 2B was authorized under CDP 5-09-071, including amendments 1 (5-09-071-A1) and 2 (5-09-071-A2). The restoration work associated with Phase 2A would be authorized by the permit amendment considered in this staff report. Completion of Phases 2A and 2B would result in the creation of new tidal habitat through construction of a new channel and expansion of the tidal prism, creation of new eelgrass habitat, and the enhancement of the existing Lagoon. These restoration activities are organized in the BEI by "Activity" and by mitigation "type" (i.e., establishment, re-establishment, rehabilitation as defined in the USACE Mitigation rule) as follows:<sup>1</sup>

Phase 2A will:

- Create 3.35 acres of new tidal habitat within the footprint of a new tidal open channel by excavation and native vegetation planting (conversion of upland area) ("Activity I");
- Create 0.51 acres of new tidal habitat at the Colorado Lagoon site by an increased tidal range from the new open channel connection (conversion of upland area) ("Activity III"); and
- Enhance 17.28 acres of existing habitat at Colorado Lagoon via the improvements from the new open tidal channel connection ("Activity IV").

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<sup>1</sup> Note: the Activities numbering is not sequential because some of the original Activities were deleted as part of previous IRT review processes.

Phase 2B will:

- Create up to 8.1 acres of eelgrass habitat within Colorado Lagoon by sediment fill of deeper subtidal areas and Eelgrass planting (“Activity V”); and
- Create 1.39 acres of tidal habitat at the Colorado Lagoon by grading of side slopes and native vegetation planting (conversion of upland area) (“Activity VI”).

[Exhibits 3 and 4](#) show the tidal habitat areas that will be created or enhanced by each activity type. These habitat types are further divided into several categories: a) Subtidal/Intertidal habitat (up to the Mean Higher High Water elevation), b) Supratidal or transitional//high marsh habitat (up to the Highest Astronomical Tide elevation), and c) Eelgrass habitat. In calculating the mitigation acreages associated with each Activity, several areas that would not be considered eligible for mitigation credits were removed. These included upland and transition areas, tidal areas under the roads and within the rip rap section of the road crossings, the walking trail, tidal areas under the walk bridge, tidal areas within the swimming beach, and the footprints of floating Christmas trees displayed during December.

Habitat credits were divided into subtidal/intertidal and supratidal because under the USACE Mitigation Rule, the USACE can approve mitigation of impacts to tidal wetlands through the restoration of buffer habitat or the purchase of buffer credits, even if the buffer area itself is not tidally influenced. However, in its previous actions, the Commission has generally required that compensation of tidal wetland impacts occur through creation, substantial restoration or enhancement of tidal habitats only, and not upland or buffer habitat. Thus, dividing the credits into these categories instead of lumping them together would allow the USACE to approve purchase of tidal and supratidal credits in accordance with its regulations, but also would allow the CCC to approve purchase of tidal credits only as mitigation for tidal wetland impacts if merited by the circumstances surrounding a specific project.

### **Service Area**

A mitigation bank’s “Service Area” refers to the geographic area within which permitted impacts may be compensated through the purchase of credits from the mitigation bank. One of the goals in defining the service area is to ensure that it is sufficiently large such that the bank is commercially viable but sufficiently small to ensure that mitigation occurs within relative proximity to the site of the impact. For the Colorado Lagoon Mitigation Bank, Exhibit B of the BEI (see Appendix B) describes the service area as spanning the coastline from Point Fermin, approximately 10 miles southwest of the bank, to and including Bolsa Chica Wetlands, approximately 8 miles southeast of the bank ([Exhibit 10](#)). The USACE may approve purchase of mitigation credits from projects located outside of the Coastal Zone but within tidally influenced waters of the Los Angeles River and the Dominguez Channel. With this exception, the landward extent of the Service Area is the Coastal Zone Boundary and the seaward extent is the state/federal waters boundary, generally three nautical miles offshore.

### **Performance Standards and Monitoring**

The City worked with the USACE and IRT to develop a comprehensive set of performance standards and monitoring protocols to ensure that the mitigation bank achieves its restoration goals. The BEI includes a minimum five year monitoring period with final (Year Five)

performance criteria and annual interim performance targets to track the Bank's progress towards successfully achieving its Year 5 requirements. Performance criteria include both absolute and relative standards covering physical (i.e., final surface elevations and tidal range), biological (cover of marsh vegetation, abundance and diversity of invertebrates, fish and bird species, and cover and density of eelgrass) and water quality (i.e., dissolved oxygen, light transmittance and water temperature) elements. Absolute standards, including water quality criteria, require that the bank meet a specific target. For example, the BEI requires that water light transmittance at Colorado Lagoon must be greater or equal to 15% in the open channel and Lagoon subtidal areas within five years. Relative standards, including many biological criteria, require that the bank meet a target relative to a reference site. For example, the BEI requires that fish species abundance and diversity at Colorado Lagoon shall be at least 80% of values measured at a reference site. A full list of performance standards is included in [Exhibit 11](#).

### **Interim and Long Term Management Plans**

The BEI also includes both an Interim and a Long-Term Management Plan. The Interim Management Plan describes monitoring and maintenance activities the City will complete over the five year interim monitoring period. [Exhibit 12](#) includes a comprehensive list of monitoring parameters, methods and frequency the City will employ to determine compliance with performance standards. The Seal Beach National Wildlife Refuge will serve as the primary reference site for eelgrass, fish, invertebrate and bird performance standards. Jack Dunster Marine Biological Reserve will serve as a control site to provide context for any water quality anomalies. The same monitoring methods used for Colorado Lagoon will also be used for the reference and control sites. In addition to these specific monitoring activities, the City will employ an adaptive management approach to ensure the bank's resources are maintained and address any unanticipated problems. Interim management and maintenance tasks include monitoring and removal of invasive plants and algae, irrigation, trespass and vandalism management, fire hazard reduction, infrastructure maintenance, recreational use management and signage management. These tasks are described in detail in Appendix D of the BEI (see Appendix B of the staff report).

The purpose of the Long Term Management Plan is to outline measures the City will implement to manage, monitor and maintain the bank to provide the required mitigation resources in perpetuity. The City will conduct annual site assessments and periodic monitoring of selected characteristics to determine stability and ongoing trends of the established habitat. The City and the IRT will review the annual monitoring and identify adaptive management actions necessary to address impacts associated with climate change, fire, floods, public use, natural events and any other future changes to the landscape that effect the resources provided by the Bank. In addition, the City commits to maintaining signs, fences, trails and other facilities, managing exotic and invasive species, maintaining water levels and performing regular inspections of the property. The City will also manage community recreational, educational and scientific use of the Bank to ensure that restored habitats are not adversely impacted.

### **Bank Credit Release**

The Colorado Lagoon will release credits for purchase after the Interim Management Period has been completed and the Bank has successfully met all final performance criteria. Although the USACE Mitigation Rule allows for the release of some credits before a bank's final performance

criteria have been met, the City of Long Beach opted to wait until the Bank meets its success criteria to release any credits. This approach optimizes the amount of credit the Bank can ultimately provide because it eliminates factors such as uncertainty and time lag that would increase the required mitigation ratio at the time of credit purchase.

The Bank will offer five types of mitigation credits:

- 1 - Rehabilitated Subtidal/Intertidal Habitat with Eelgrass
- 2a - Established and Re-Established Subtidal/Intertidal Habitat without Eelgrass
- 2b - Rehabilitated Subtidal/Intertidal Habitat without Eelgrass
- 3a - Established and Re-Established Supratidal Habitat
- 3b - Rehabilitated Supratidal Habitat

The terms “rehabilitation,” “establishment” and “re-establishment” are defined in the USACE Mitigation Rule.<sup>2</sup> “Establishment” is similar to “creation” and can be defined as the development of an aquatic resource that did not previously exist. Both “re-establishment” and “rehabilitation” are a subset of the more general term, “restoration.” “Re-establishment” means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource, and results in an increase in aquatic resource area and functions. “Rehabilitation” is the manipulation of a site with the goal of repairing natural/historic functions to a degraded aquatic resource and results in a gain in aquatic resource function but not aquatic resource area.

The number of credits of each credit type available for purchase is estimated in Table F-1-2 of the BEI (see [Exhibit 13](#)) based on design parameters. The final number of credits will be determined based on the results of topographic surveys conducted at the end of the five-year interim monitoring period. Once credits are available, agencies, including the Commission, may approve purchase of credits by a project applicant to fulfill mitigation needs on a case-by-case basis.

For the Colorado Lagoon Mitigation Bank, the most likely use of mitigation credits will be for the expansion of existing marine terminals in the outer harbor of the Port of Long Beach. As the Bank was developed, the City, in consultation with the USACE and the IRT developed guidelines for setting mitigation ratios for future Port projects (see Section III of Appendix F of the BEI). These guidelines use the current USACE Mitigation Ratio Checklist to estimate a potential range of mitigation ratios based on a generalized description of the existing habitat and potential impacts from future projects. The USACE Mitigation Checklist incorporates many of the factors that the Commission considers when determining mitigation ratios (i.e., proximity of the mitigation to the impact, uncertainty, time lag and type of mitigation). However, the resulting mitigation ratios are based on USACE mitigation regulations and are not always consistent with Commission regulations and practice. Nevertheless, the USACE Mitigation Checklist provided a useful framework for the IRT to discuss potential future mitigation ratios for Port Projects.

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<sup>2</sup> Definitions taken from <https://www.epa.gov/cwa-404/compensatory-mitigation-methods>.

The mitigation ratio setting guidelines in the BEI include two credit calculation examples. Both examples assume that the project requiring mitigation is a Port of Long Beach project that results in impacts to marine habitat that is of relatively poor quality (i.e., adjacent to an existing Port terminal in the outer harbor) in the outer harbor. Based on this hypothetical project, the City is proposing a potential mitigation ratio range of 0.8 - 0.96 to 1 (mitigation area to impact area) for Type I credits (Rehabilitated Subtidal/Intertidal Habitat with Eelgrass) and 2 - 2.45 to 1 (mitigation area to impact area) for Type 2b credits Rehabilitated Subtidal/Intertidal Habitat without Eelgrass). The lower ratio for Type I credits reflect that these credits, which would result in the significant restoration of tidal habitat including the establishment of new eelgrass habitat, are likely to be more valuable than other credits offered by the Bank because the proposed restoration work would result in the most significant increase in ecological functions. It should be noted, however, that a mitigation ratio of less than 1 to 1 would result in a net loss of tidal habitat. These guidelines provide a theoretical mitigation ratio range determination based on a theoretical project. As is clearly stated in the BEI, the ratios included in these guidelines are not binding. If the mitigation bank is approved and the Port or any other entity applies to purchase credits as required compensatory mitigation, the Commission, the USACE and any other regulatory agency, would be required to examine the impacts associated with a specific project and determine an appropriate mitigation ratio. That ratio may or may not be within the range included in the mitigation ratio setting guidelines and will be at the discretion of a future Commission and other regulatory decision makers

### **Bank Signatories**

On January 4, 2019, the USACE submitted a letter to the City informing them that it had signed the Bank Enabling Instrument (BEI), thus indicating that the City has met all the necessary requirements under the USACE Mitigation Rule and that the Bank has been approved by the USACE. The EPA has indicated it is likely to become a signatory.

The NOAA National Marine Fisheries Service (NMFS) indicated in a letter to the USACE that it will not become a signatory to the bank, although it is also not objecting to USACE's approval of the Bank. NMFS provided several reasons for this position including: 1) Disagreement with final ecological condition assessment scores for the Lagoon; 2) Preference for a more conservative approach for guidelines on setting mitigation ratios with a minimum 1:1 (mitigation : impact) ratio for bank credits; 3) Water quality concerns related to the deep central basin in the Lagoon; and 4) Insufficient analysis of the effects of cessation of future power plant intake pumping.

### **Term**

Through a legislative grant, Colorado Lagoon was granted to the City of Long Beach to hold in trust for the benefit of the people of the State of California. This grant restricts the term of any agreement regarding Colorado Lagoon, such as a deed restriction, to a period of fifty years, with a right of renewal of 25 years. Thus, the Conservation Land Use Agreement that restricts use of the Bank to conservation uses includes an effective duration of fifty years and a statement that the intent of the City and the USACE is to extend the agreement for additional fifty year terms. While a fifty year timeframe may be appropriate for some types of mitigation required under the Coastal Act, this timeframe would not be appropriate for mitigation required by the Commission to provide compensatory resources in perpetuity. In the future, if and when the Commission



considers a project that seeks to purchase credits from the Bank as compensatory mitigation, it may be necessary to include a requirement that the City, as Bank Sponsor, is responsible for fulfilling a mitigation requirement in perpetuity, regardless of the long-term disposition of the Bank.

#### **D. OTHER AGENCY APPROVALS**

##### **Los Angeles Regional Water Quality Control Board**

The LA RWQCB issued a 401 Water Quality Certification for Phase 2 of the Colorado Lagoon Restoration Project on June 18, 2015.

##### **U.S. Army Corps of Engineers (USACE)**

The USACE issued a provisional permit for work associated with Phase 2A of the Colorado Lagoon Restoration Project on March 4, 2016. The permit will be finalized once the City obtains approval from the Commission to satisfy Coastal Zone Management consistency requirements. The USACE also issued its approval of the Colorado Lagoon mitigation bank by providing its signature on the Banking Enabling Instrument on January 4, 2019.

#### **E. DREDGE AND FILL OF MARINE WATERS**

Coastal Act Section 30233(a) states:

*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:*

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
- (2) Maintaining existing, or restoring previously dredged depths on existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
- (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
- (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
- (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
- (6) Restoration purposes.*

(7) *Nature study, aquaculture, or similar resource dependent activities.*

As discussed in Section B above, the proposed project will involve filling of coastal waters and wetlands. In addition to this permanent impact, project-related construction will result in temporary impacts to coastal waters and wetlands. Activities include construction of the open channel and surrounding wetland habitats, deposition of excavated material into the Lagoon, introduction of tidal flows into the new channel, and construction and use of access roads and staging areas, all of which could result in disturbance to existing wetland and Lagoon habitat.

Coastal Act Section 30233(a) imposes three tests on a project that includes dredging and/or fill of open coastal waters or wetlands. The first test requires that the proposed activity must fit into one of the seven categories of enumerated uses. The second test requires that there be no feasible less environmentally damaging alternative. The third test requires that feasible mitigation measures be provided to minimize the project's adverse environmental effects.

**Allowable Use Test**

The first test set forth above is that any proposed filling, diking, or dredging in wetlands must be for an allowable purpose as specified under Section 30233 of the Coastal Act. As described in Section B, the purpose of the proposed project is to restore a full tidal connection between Alamitos Bay and Colorado Lagoon. This will improve water quality in the Lagoon and restore subtidal, intertidal and supratidal habitats within the Lagoon. Proposed fill within the Lagoon is specifically designed to raise the elevation of some of the deeper areas of the Lagoon (that were excavated to remove contaminated sediments) to create the type of shallow subtidal habitat that existed historically. The proposed restoration work would provide extensive benefits to marine resources such as sensitive fish and estuarine plant species. Furthermore, **Special Condition 13** requires that the City monitor the restored areas to demonstrate that restoration is achieved. Thus, the Commission finds that the proposed restoration is consistent with the definition of restoration and constitutes filling and dredging for restoration purposes consistent with Section 30233(a)(6).

**Alternatives**

The second test set forth by the Commission's diking/dredging/filling policies is that the proposed diking/dredging/filling project must have no feasible less environmentally damaging alternative. In this case, the Commission has considered alternatives and determines that there are no feasible less environmentally damaging alternatives to the project as conditioned. Alternatives that have been identified include: (1) the "no project" alternative (2) parallel culvert alternative; and (3) bridge crossing alternative.

"No-Project" Alternative

Under this alternative, the City would not construct the open channel between the Lagoon and Alamitos Bay. Potential water quality impacts to the Lagoon and Marine Stadium from increased sedimentation associated with construction activities and introduction of tidal flows into the proposed earthen channel would be eliminated. However, the connection between the Lagoon and Alamitos Bay would remain muted, and the Lagoon would continue to suffer from water quality problems associated with low dissolved oxygen and limited circulation. This, in

turn, would limit the ecological value of the habitat within the Lagoon for both flora and fauna. In addition, ecological benefits associated with the proposed wetland areas adjacent to the open channel would not be realized. Furthermore, the central basin within the Lagoon would not be filled to raise the elevation, thus potentially exacerbating the water quality problems described above. Thus, this alternative is not a feasible, less environmentally damaging alternative to the proposed project.

#### Parallel Culvert Alternative

Under this alternative, the City would not construct an open channel but instead would construct a second culvert parallel to the existing culvert. Installation of a second culvert would increase the tidal range and tidal prism within the Lagoon above current conditions. However, this alternative would not allow for a full tidal connection, and thus, the tidal connection would still be muted with a longer residence time than the proposed project. As with the “no-project” alternative, potential water quality impacts to the Lagoon and Marine Stadium from increased sedimentation associated with construction activities and introduction of tidal flows into the proposed earthen channel would be eliminated. However, although an improvement in this respect from the “no-project” alternative, muted tidal flows into the Lagoon may not be sufficient to eliminate existing water and habitat quality problems. In addition, ecological benefits associated with the proposed wetland areas adjacent to the open channel would not be realized. Furthermore, the central basin within the Lagoon would not be filled to raise the elevation, thus potentially exacerbating the water quality problems described above. Thus, this alternative is not a feasible, less environmentally damaging alternative to the proposed project.

#### Bridge Crossing Alternative

Under this alternative, the City would construct the open channel but the channel crossings at East Colorado and East Elliot Streets would be constructed as pile-supported bridges over the channel instead of box culverts. Bridge crossings would improve the habitat quality directly under the roadway by increasing the surface area of earthen-bottom channel, although rip-rap protection along the channel banks would likely still be necessary to reduce erosion. Bridge crossings would also be more aesthetically pleasing. However, the City determined that constructing pile supported bridge crossings would be more costly and would increase the construction time, thus making this alternative infeasible. In addition, although this alternative would result in a slightly larger surface area of habitat, the ecological benefits to the overall system from this small increase in habitat as compared to the proposed project are small. Thus, this alternative is not a feasible, less environmentally damaging alternative to the proposed project.

Accordingly, for the reasons described above, the Commission finds that the proposed project is the least environmentally damaging feasible alternative and therefore meets the second test of Coastal Act Section 30233(a).

#### **Mitigation**

The final test set forth by the above-cited policies is whether feasible mitigation measures have been provided to minimize adverse environmental effects. Proposed restoration work would result in both permanent impacts associated with filling the Lagoon and temporary impacts associated with construction activities. The proposed filling of coastal

waters will result in placement of fill in the deepest parts of the central Lagoon bringing the elevation from approximately -20 feet NGVD29 to -15 feet NGVD29. In general, decreasing the depth of the central Lagoon is an ecological benefit of the project. Shallower depths improve overall circulation within the Lagoon and increase the likelihood that Lagoon circulation and tidal exchange will be sufficient to address concerns related to low dissolved oxygen levels at the bottom of the Lagoon. To ensure that this and other ecological benefits associated with the proposed project are realized and the habitat protected, **Special Condition 10** restricts future allowable development within the restored areas within the Lagoon, including the proposed open channel and surrounding habitat areas. No development will be allowed in these areas with the exception of activities such as restoration construction work, monitoring and maintenance of habitat areas, invasive plant removal and other restoration maintenance activities, fence repair, and the annual installation of lighted Christmas trees within the Lagoon. **Special Condition 13** requires the City to implement the Monitoring Plan described in the BEI. This ensures that the City conducts adequate monitoring of water quality and biological and physical parameters within the Lagoon and open channel, to ensure that performance criteria developed in conjunction with the IRT are achieved and the restoration is successful.

Even with these conditions in place, it is still possible that low dissolved oxygen levels at the lower depths of the Lagoon could adversely affect Lagoon species, especially benthic invertebrate species and bottom-dwelling fish. This could lead to depressed populations of fish, invertebrates and eelgrass species and even catastrophic events such as fish kills. In addition, conditions within the Lagoon could be conducive to the accumulation of macroalgae and organic debris in the deeper portions of the Lagoon. This natural phenomenon could also lead to low oxygen conditions which could adversely affect Lagoon plant and animal species. The monitoring requirements and performance criteria included as part of the Mitigation Bank partially address these concerns. The BEI includes a provision for water quality monitoring in the Central portion of the Lagoon and a performance standard requiring monthly mean dissolved oxygen levels to be greater or equal to 5 mg/l. However, these requirements do not go far enough to ensure that the proposed restoration results in the ecological benefits it seeks to attain. To further address water and habitat quality concerns in the tidal waters of the Lagoon, **Special Condition 14** requires that the City submit to the Executive Director for review and written approval a Colorado Lagoon Deep Water Monitoring Plan. The Plan will include monitoring protocols, thresholds and remedial actions for monitoring of dissolved oxygen, benthic species and macroalgae on the Lagoon floor within the deepest part of the Lagoon to ensure that water quality within these areas and throughout the Lagoon is maintained. However, it is important to note that current, baseline conditions for water quality and aquatic species in the Lagoon are relatively poor, and the project is intended to help achieve an improvement in these conditions. Thus, although the project will have certain impacts that must be mitigated, it is, overall, a restoration project that will help restore the area and have a positive impact.

In addition to addressing permanent impacts from filling of the Lagoon, the Commission requires several other special conditions to ensure the Lagoon and surrounding wetland areas are protected and any temporary impacts are minimized during construction of the open channel. **Special Condition 1** requires the City to implement several staging and construction best

management practices to minimize adverse environmental impacts. These include the use of silt curtains to minimize impacts from increased levels of turbidity and careful management of stockpiles and staging areas to minimize runoff. **Special Condition 2** ensures that impacts to eelgrass are temporary or are mitigated adequately. **Special Condition 11** requires the City to submit a Construction Monitoring Plan to document biological resources at the site, including wetlands, sensitive habitat areas, and special-status species, and to provide for biological monitoring during construction and document wetlands and other tidal habitat before and after construction to verify that any impacts to these resources are temporary. **Special Condition 12** requires the City to submit a Pollution Prevention Plan (PPP) that describes how the newly constructed channel will be connected to the Lagoon and to Marine Stadium and what measures the City will implement to ensure that the habitat and water quality within the Lagoon and Marine Stadium is not adversely affected during or after the channel is connected. Implementation of these mitigation measures will ensure that indirect impacts to the Lagoon and surrounding wetland areas from nearby construction areas will be minor and temporary.

With these conditions incorporated, the proposed project provides feasible mitigation for both permanent and temporary wetland impacts, and thus, the Commission finds that the third test of Coastal Act section 30233(a) has been met.

For the reasons described above, the Commission finds the project, as conditioned, consistent with Coastal Act Section 30233(a).

## **F. MARINE RESOURCES**

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.*

The proposed amendment would result in implementation of the final phase of a multi-step effort to restore and enhance water quality, biological productivity and public recreation in Colorado Lagoon. Previous restoration phases have resulted in: 1) the removal of contaminated sediments through dredging, 2) clearing of the tidal culvert that connects to the Lagoon to Alamitos Bay, 3)

removal of paved vehicular areas from the north shore, 4) installation of low-flow diversions and trash separation devices in the storm drains, 5) recontouring of the north shore to provide a range of tidal wetland habitats, and 6) planting of eelgrass areas within the Lagoon. The proposed work would result in the construction of an open channel that would provide a full tidal connection between the Lagoon and Alamitos Bay.

The Lagoon is currently home to several special status plant species (e.g., estuary seablite), animal species (e.g., California least tern, Belding's savannah sparrow, Pacific green sea turtle, Wandering skipper) and important marine habitats (eelgrass beds, southern coastal salt marsh, Diegan coastal sage scrub, southern dune scrub, intertidal flats, rocky shoreline, subtidal marine, and sandy beach). Several other special status species have a high potential to be present on the site (i.e., brown pelican, tiger beetles, fiddler crabs, monarch butterflies). Once completed, the proposed restoration work will result in improved access to high quality habitat for most if not all of these species, and the expansion of valuable tidal habitats such as coastal salt marsh and eelgrass beds.

Although the goal of the proposed project is to restore the Lagoon, construction-related activities could cause impacts to marine species and habitats within the Lagoon and Alamitos Bay. In particular, the most significant marine resource and water-quality related impacts associated with the proposed project are likely to stem from increased sedimentation associated with construction activities and introduction of an earthen channel connecting the Lagoon to Alamitos Bay. Elevated levels of suspended sediment or other pollutants can cause mortality, illness, or injury of fish species by interfering with feeding, growth, and habitat. To avoid these adverse impacts, it is critical to control the erosion at the source. Construction activities can also result in accidental discharges of other pollutants, including chemicals, paints, vehicle fluids, petroleum products, asphalt and cement compounds, debris, and trash. To minimize impacts from these types of construction-related discharges, **Special Condition 1** requires the City to implement several staging and construction best management practices to minimize adverse environmental impacts. These include the use of silt curtains to minimize impacts from increased levels of turbidity and careful management of stockpiles and staging areas to minimize runoff and accidental discharge of hazardous pollutants. **Special Condition 11** requires the City to submit a Construction Monitoring Plan to document biological resources at the site, including sensitive habitat areas and special-status species, and to provide for biological monitoring during construction and document wetlands and other tidal habitat before and after construction to verify that any impacts to these resources are temporary. **Special Condition 9** requires the City to submit final plans, including the proposed native plant palette for salt marsh areas adjacent to the channel. **Special Condition 12** requires the City to submit a Pollution Prevention Plan (PPP) that describes how the newly constructed channel will be connected to the Lagoon and to Marine Stadium and what measures the City will implement to minimize erosion and ensure that the habitat and water quality within the Lagoon and Marine Stadium is not adversely affected during or after the channel is connected.

Construction activities could also result in adverse impacts to existing intertidal and subtidal habitat and eelgrass beds within the Lagoon, including some areas that were created as mitigation for other projects. As mentioned in Section A above, CDP 5-11-085 authorized the establishment of new submerged soft-bottom habitat and eelgrass beds within Colorado Lagoon

as mitigation for permanent fill of coastal waters caused by the Naples Island Seawall Repair Project. The City created these areas as part of Phase 2B, which was completed in May 2017. The most significant potential impact to these habitats would be the interruption of tidal flows into and out of the Lagoon during construction. However, the proposed project would result in construction of the new channel and box bridges around the existing culvert to ensure that the tidal connection is maintained during construction. To further ensure that existing habitats and mitigation areas are maintained and not adversely affected by the proposed Phase 2A work, **Special Condition 2** requires the City to conduct pre- and post-construction surveys of eelgrass within the Lagoon to ensure that any impacts to eelgrass habitat is temporary. If these surveys indicate permanent impacts to eelgrass, the City would be required to mitigate these impacts at a minimum 1.2:1 ratio on site, consistent with the Southern California Eelgrass Mitigation Policy adopted by the NOAA National Marine Fisheries Service. Furthermore, **Special Condition 3** requires the City to conduct pre-construction surveys for the invasive algae, *Caulerpa Taxifolia*. If any evidence of the invasive algae is discovered, the City has to demonstrate that the invasive algae has been eliminated or revise the project to avoid it. **Special Condition 4** requires that any timber used in construction activities is free from hazardous contaminants. **Special Condition 6** requires that the City conduct all landscaping activities to protect native vegetation, avoid impacts to nesting birds, avoid invasive species and maintain views of the water from public areas. Finally, **Special Condition 7** requires that any tree trimming or removal occur outside the bird nesting season and avoid any current or historical nesting sites.

In addition to construction-related effects on marine resources and water quality, the proposed project includes several elements to address long-term impacts to these resources. The project was designed to accommodate the full range of existing tidal and storm flows as well as future sea level rise conditions. The City conducted hydrologic modeling studies to determine the current and future capacity of the channel and the box culverts. Results of both coarse and fine resolution modeling studies indicate that the proposed channel and box culvert configuration will be sufficient to convey tidal flows between Colorado Lagoon and Marine Stadium, providing for full tidal exchange with the Lagoon, with only a minor lag time. Furthermore, flow velocities along the proposed open channel bottom are predicted to be relatively small (1.0 to 1.3 feet per second) during tidal exchanges, thus minimizing the potential for erosion of the channel bottom and banks. The road surfaces on top of the box culverts range from an elevation of 12.4 to 13 feet NGVD29, which corresponds to a freeboard of approximately 8.2 feet to allow for conveyance of storm flows. Previous work within the Lagoon watershed has also resulted in rerouting of storm drains into Marine Stadium, thus reducing the anticipated storm flow volume into the Lagoon. The designed freeboard is also sufficient to accommodate a substantial amount of sea level rise before the roadways over the channel are affected. In fact, the existing roadways to the east and west of the channel, with elevations as low as 7 feet NGVD29 will be vulnerable to sea level rise long before the proposed box culverts are breached. Proposed intertidal and supratidal habitats proposed for areas adjacent to the channel will also provide a buffer to flood flows under current tidal conditions, as well as adjacent upland areas currently above the influence of the tide where coastal salt marsh areas can migrate upslope as sea levels rise.

As discussed in detail in Section C above, the City has proposed a mitigation bank at Colorado Lagoon, consistent with the USACE Mitigation Banking Rule. As part of the mitigation bank, the City proposes to complete the proposed restoration work, establish a conservation land use

agreement on the property, monitor the habitat post-construction to demonstrate that the quality of the habitats is sufficient to satisfy physical, biological and water quality performance criteria, and then, if successful, sell mitigation credits to other entities seeking to fulfill mitigation obligations associated with other projects. In this manner, the City would be able to pay for the restoration work after the fact and potentially make money if the total price of the credits exceeds the cost of the work. The BEI, included as Appendix B, describes in detail the proposed work, monitoring plan, performance criteria, interim and long term management plans, and the crediting structure for the bank. The USACE has already approved the BEI and will become a signatory to the bank, formalizing the components of the bank as described above. If the Commission authorizes the Executive Director to become a signatory to the bank, the City would also be accountable to the Commission to implement the restoration work, including monitoring, evaluation, and management of the bank as described in the BEI. Becoming a signatory would also indicate that the Commission has reviewed and is in agreement with the tenants of BEI, although it would not bind a future Commission to use the bank for compensatory mitigation.

Regardless of whether the Executive Director becomes a signatory to the BEI, this CDP includes adequate protections to ensure that the restoration work is successful in improving marine resources and water quality at Colorado Lagoon over the long term. As described in Section E., **Special Condition 13** requires the City to implement the Monitoring Plan described in the BEI. This ensures that the City conducts adequate monitoring of water quality, biological, and physical parameters within the Lagoon and open channel, to ensure that performance criteria developed in conjunction with the IRT are achieved and the restoration is successful. Further, **Special Condition 14** requires the City to monitor water quality and biological indicators of water quality in the central portion of the Lagoon. Finally, **Special Condition 10** restricts future development within the restored areas within the Lagoon, limiting activities to monitoring and remedial activities associated with the Bank and maintenance activities. With these conditions in place, the restoration work will be implemented and maintained to ensure that biological productivity within the Lagoon is improved and the ecological benefits from the restoration are continued into the future.

For the reasons described above, the proposed project, as conditioned, will ensure that water quality impacts from increased sedimentation and introduction of an earthen channel will be minimized and project activities will be implemented in a manner that protects marine resources and maintains the biological productivity of coastal waters. In addition, the restoration project presents an exciting and unique opportunity to carry out the mandate of Sections 30230 and 30231 of the Coastal Act to restore degraded marine resources and biological productivity. Thus, the Commission finds the proposed project consistent with Sections 30230 and 30231 of the Coastal Act.

## **G. PUBLIC ACCESS**

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 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.*

Section 30221 of the Coastal Act states:

*Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

Colorado Lagoon is surrounded by 18.5 acres of public parkland managed by the City of Long Beach. Existing improvements in Colorado Lagoon Park consist of restroom facilities, a lifeguard station, the Wetland and Marine Science Education Center, a preschool and model boat shop building, playground equipment, picnic tables, and a metered parking lot parallel to Appian Way. The central Lagoon provides a popular beach and water play area.

The proposed project will provide for the public's continuing use of the recreational facilities at Colorado Lagoon. Swimming and water play will be permitted only at the existing beach at the southern central part of the Lagoon. The beach and water play area will benefit from the project's expected water quality improvements. The existing pedestrian foot bridge extension will continue to provide recreational opportunities for wildlife viewing and nature study. New and improved walking trails will provide for public pedestrian access along the northern, eastern, and southern banks of the Lagoon and the open channel. Proposed fencing will prevent visitors from trampling the sensitive habitat areas. Within Marina Vista Park, the City will relocate existing ballparks, restrooms and passive recreational areas to ensure that the Park maintains the same public services and recreational resources. Construction-related traffic will be short-lived and temporary roadways will ensure that the public can traverse through Marina Vista Park during construction. Thus, the public's ability to access the Lagoon and the coast will not be adversely affected. .

Although the project will temporarily impact the use of some portions of the Lagoon and park during the completion of the proposed restoration project, the public benefits of the project outweigh the inconveniences of the construction. The completion of the proposed project will result in an improved public recreation area. Therefore, the proposed project and the permit amendment will not have a substantial negative effect on the public's ability to access the coast, and the project is consistent with the public access and recreation policies of the Coastal Act.

## **H. CULTURAL RESOURCES**

Coastal Act Section 30244 states:

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

The proposed project would result in construction of an open channel in an urban park within the City of Long Beach. The project area is highly disturbed and has been subject to numerous dredge and fill activities over the years. Thus, the potential for the discovery of cultural and/or tribal resources during excavation activities is very low. As part of the EIR, the City conducted a paleontological and cultural resource records search and a field survey to determine if known resources were present on the site. Both the records search and the survey did not reveal any known resources within the project area. The City also conducted consultation with Native American tribes under SB 18. The City consulted with the NAHC and contacted seven individual tribes at the request of the NAHC.

Based on these consultations and to ensure that impacts to cultural resources were minimized, the City included three mitigation measures in the EIR designed to ensure that any previously unknown tribal or other cultural resources discovered during project-related activities would be protected. Specifically, these mitigation measures (CUL-1, CUL-2 and CUL-3) required the City to retain a Los Angeles County certified archaeologist to establish procedures for temporarily halting or redirecting work if unknown archaeological resources are discovered during excavation and other grading work to permit the sampling, identification, and evaluation of archaeological materials as appropriate. If archaeological materials are identified, the archeologist would characterize the resources and develop a plan to mitigate any impacts to those resources. Furthermore, the measure describes procedures the City will follow in the event that human remains are discovered. Finally, the EIR requires that the City provide an opportunity for qualified tribal members of the Gabrielino Tongva Indians of California Tribal Council and the Gabrielino/Tongva San Gabriel Band of Mission Indians to monitor any ground-disturbing activities occurring in undisturbed native soil. With these conditions in place, reasonable mitigation measures are in place to minimize impacts to cultural and tribal resources, and thus, the Commission finds the proposed project consistent with Section 30244 of the Coastal Act.

## **I. LOCAL COASTAL PROGRAM**

Pursuant to Section 30519 of the Coastal Act, development located within the Commission's area of original jurisdiction requires a coastal development permit from the Commission. The Commission's area of original jurisdiction includes tidelands, submerged lands, and public trust lands, whether filled or unfilled. The proposed project is situated on submerged lands and on filled tidelands within the Commission's area of original jurisdiction.

The Commission's standard of review for the proposed development in its area of original jurisdiction is the Chapter 3 policies of the Coastal Act. The City of Long Beach certified LCP is advisory in nature and may provide guidance. The City of Long Beach LCP was certified by the Commission on July 22, 1980.

The proposed project is not in conflict with the provisions of the City of Long Beach certified LCP. Colorado Lagoon has a zoning designation of Park (P) and is designated as a Special Use

Park. The certified LCP policies for Colorado Lagoon, as set forth in the LCP's Resource Management Plan, state:

A. General Policy

Use of Colorado Lagoon should be primarily recreational. However, presence of its unique clam population requires strong conservational considerations. Commercial use other than food services and beach equipment should not be allowed. Educational uses should be encouraged.

B. Guidelines

1. Management Responsibility

Overall management of Colorado Lagoon will be vested in the Marine Department (see Alamitos Bay).

2. Water Quality

- a. The major storm drains presently emptying into the west and north arms of the lagoon should be diverted to the ocean or the San Gabriel River.
- b. Sediments deposited by the storm drains should be removed and replaced by sand. Clams should be re-bedded. Entire process should be supervised by Department of Fish and Game.

3. Public Access

- a. When recreational use conflicts with maintenance of the clam population, controls must exist in favor of the latter.
- b. Public health and safety must be assured during major maintenance activities and periods of poor water quality or exposed sediments.
- c. Provide directive signs and other amenities to encourage maximum use of the north beach and parking lot.
- d. Health Department should monitor clams to preclude human ingestion of toxic metals.
- e. A children's play module should be provided on the south shore.

4. Maintenance

Prepare a plan for upgrading and maintaining the appearance of lagoon area. This plan should include improved landscaping, grass picnic areas (especially at the northwest end), erosion control, and increased beach area. The plan should be in two phases, recognizing the impact of Guidelines 2a and b.

The proposed project will address water quality issues in the Lagoon, in conformity with the LCP's goals of addressing deteriorating water quality. It will also not affect the current

recreational opportunities in the Lagoon, and in fact may benefit recreational opportunities at the beach by helping provide improved water quality. If the Colorado Lagoon Mitigation Bank is formalized, the designation of Colorado Lagoon as primarily recreational could be viewed as inconsistent with the requirements of the bank to manage the Lagoon primarily as marine habitat, as outlined in the Conservation Land Use Agreement required as part of the bank. However, the bank has been designed to achieve restoration goals while accommodating existing public uses, including swimming and water play on the south shore. The development restrictions required by **Special Conditions 10** also allow for the continuation of existing recreational use of the Lagoon. Thus, the City may wish to revise its Lagoon-related LCP policies to reflect the primary designation of the land use within Colorado Lagoon as natural marine habitat, as well as to generally update these dated policies to reflect current uses and conditions in the area. Thus, as conditioned, the proposed development is consistent with Chapter 3 of the Coastal Act and is not in conflict with the certified LCP for the area, which may be used as guidance.

#### **J. CALIFORNIA ENVIRONMENTAL QUALITY ACT**

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

The City of Long Beach, acting as lead CEQA agency, certified an Environmental Impact Report for the proposed project in October 2008, and certified an addendum in November 2010.

The proposed development has been conditioned to be found consistent with the Chapter 3 policies of the Coastal Act. Mitigation measures, including conditions addressing dredge and fill of coastal waters, biological resources, and water quality will ensure that the project does not result in any unmitigated significant adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

**Appendix A: Substantive File Documents**

California Coastal Commission. “Staff Report for CDP Application Number 5-09-071.” July 23, 2009 (Approved August 14, 2009).

California Coastal Commission. “Staff Report for CDP Amendment Application Number 5-09-071-A1.” August 18, 2011 (Approved September 7, 2011).

California Coastal Commission. “Staff Report for CDP Amendment Application Number 5-09-071-A2.” April 23, 2015 (Approved May 15, 2015).

California Coastal Commission. “Staff Report for CDP Application Number 5-11-085” September 27, 2013 (Approved October 9, 2013).

City of Long Beach. Application to Amend CDP E-09-071, including Responses To Incompleteness #1 and #2. July, 2017.

City of Long Beach. Final Environmental Impact Report, Colorado Lagoon Restoration Project. August 2008.

City of Long Beach. Addendum to Final Environmental Impact Report, Colorado Lagoon Restoration Project. September 2010.

City of Long Beach. Colorado Lagoon Mitigation Bank, Final Bank Enabling Instrument. December 2018.

Email Correspondence from City staff and staff of the USACE, NMFS, EPA and Christine Whitcraft between 6/5/2014 and 1/24/19.

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**5-09-071-A3**

**FEBRUARY 8, 2019**

**APPENDIX**

Available at:

<https://documents.coastal.ca.gov/reports/2019/2/F14e/F14e-2-2019-appendix.pdf>