

CALIFORNIA COASTAL COMMISSION

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STAFF REPORT: REGULAR CALENDAR

Application No.: 6-16-0528

Applicant: CA Department of Fish and Wildlife

Agent: Tim Dillingham

Location: Batiquitos Lagoon between the ocean and El Camino Real and the beach area south of the lagoon inlet, Carlsbad, San Diego County.

Project Description: Maintenance dredging including removal of up to 118,000 cubic yards of beach sand from the central basin to be deposited on beach area south of the lagoon inlet.

Staff Recommendation: Approval with Conditions

SUMMARY OF STAFF RECOMMENDATION

Staff is recommending approval of the proposed project with conditions to allow dredging of up to 118,000 cubic yards of beach quality sand from the central basin of Batiquitos Lagoon to be deposited south of the lagoon inlet at South Ponto State Beach. Sand is constantly being brought into the lagoon through tidal action and continually accumulates in the lagoon. This increased sediment results in a reduced tidal prism that

introduces stresses on the natural resources within the lagoon, and the proposed dredging is required to assure the continued health of the lagoon.

In order to maintain a permanently open lagoon mouth and healthy lagoon ecosystem, periodic maintenance dredging of the lagoon bottom has occurred since the completion of the initial lagoon restoration plan approved in CDP 6-90-219. Over the past 20 years, five maintenance dredging proposals have previously been approved by the Commission in the form of amendments to CDP 6-90-219 and have involved the dredging of up to 100,000 cubic yards of beach quality sand per dredge event, that was subsequently deposited on nearby Carlsbad State Beach areas or existing nesting sites within the Lagoon's Ecological Reserve boundary. The proposed project will occur within Batiquitos Lagoon, where the Commission retains jurisdiction. As such, the standard of review is the Chapter 3 policies of the Coastal Act.

The current application proposes the removal of the same amount of sediment approved by the Commission in 2010 (118,000 cubic yards). In addition, the proposed location for sand deposition has been the same for all six previous dredge cycles. CDFW has incorporated all previous project modifications required by the Commission regarding timing, staging locations, and dredging practices into the proposed project.

The primary concerns associated with the proposed development are potential impacts to marine resources and public access. The potential impacts to marine resources identified include the disruption of nesting birds and/or grunion spawning activities, the removal of eel grass, and/or the uncovering and potential spread of the invasive algae species *Caulerpa* during construction. Public access impacts identified include loss of beach use during sand placement, and the need to determine what the long-term benefits of sand placement are to public access. In order to address these concerns staff is recommending approval of the project with the inclusion of eight (8) Special Conditions.

The attached conditions of approval require final plans which indicate appropriate staging areas (**Special Condition No. 1**) and that dredging can only occur between September 15 and February 15 to avoid potential disturbance of California least terns and western snowy plovers during their breeding periods as well as grunion spawning season (**Special Condition No. 4**). To prevent the spread of non-native invasive species, **Special Condition No. 5** requires a *Caulerpa taxifolia* survey will be required to occur between 30 to 90 days prior to dredging commencement.

The reuse of excavated material on nearby beaches will increase the amount of available recreational area for public use. **Special Condition No. 2** requires a shoreline monitoring plan to be developed and implemented to determine the results of beach nourishment over five years. **Special Condition No. 4** further requires that beach nourishment activities take place outside of the busy summer season from Memorial Day weekend through Labor Day so that public access is not negatively impacted. Because surfing resources could potentially be impacted by the project, **Special Condition No. 3** requires the applicant to monitor surfing conditions prior to and following nourishment activities and submit monitoring reports.

Finally, **Special Condition No. 8** requires the applicant to acknowledge and assume all risks and liabilities from conducting development in a hazardous location. To ensure that all development is undertaken as proposed, **Special Condition No. 6** requires the applicant to submit Post-Dredging plans, that are in substantial conformance to those originally submitted, within 60 days of project completion.

Additionally, this project, as proposed, was developed in conjunction with the Army Corps of Engineers and the U.S. Fish and Wildlife Service and **Special Condition No. 7** requires the applicant to submit copies of all other required state or federal discretionary permits to the commission prior to the commencement of dredging activities. As conditioned, all potential adverse impacts on coastal resources are addressed to assure consistency of the development with Chapter 3 policies of the Coastal Act.

Therefore, Commission staff recommends **approval** of coastal development permit application 6-16-0528 as conditioned herein.

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EXHIBITS

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I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** Coastal Development Permit Application No. 6-16-0528 subject to the conditions set forth in the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in conditional approval of the permit 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 6-16-0528 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 and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit 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.

II. STANDARD CONDITIONS

This permit 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 permittee 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 permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Final Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and written approval of the Executive Director, one full-size set of the following final plans:

- (a) Dredge and Sand Placement Plans that substantially conform with the plan submitted to the Commission by California Department of Fish and Wildlife dated May 2016. The Plans shall show that the location of all staging is limited to Nesting Site E1.

The permittee shall undertake development in conformance with the approved final plans unless the Commission amends this permit or the Executive Director determines that no amendment is legally required for any proposed minor deviations.

2. **Beach Sand Monitoring.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, a detailed beach sand monitoring program for shore and nearshore monitoring at and near the receiver site (South Ponto Beach, directly south of the mouth of Batiquitos Lagoon). Monitoring at and adjacent to the receiver sites shall address the following concerns:

- (a) Monitoring at and adjacent to the receiver sites shall address the following concerns:
 - i. Confirm as-built project plans for location and deposition amounts and document any plan revisions;
 - ii. Seasonal and inter-annual changes to the receiver sites, in width of dry beach, subaerial and nearshore slope, offshore extent of nourished toe, and overall volume of sand in the profile;
 - iii. Extent of transport of material up- and down-coast from the receiver sites; and
 - iv. Time period over which the beach benefits related to the project can be identified as distinct from background conditions.

(b) The plan shall be prepared by a qualified engineer with experience in coastal engineering and include, at a minimum, the following:

- i. Field surveys of the receiver sites and adjacent areas. Unless otherwise indicated, all profiles shall extend from an upland fixed location or monument, across the beach, through the nearshore, to closure depth. Profiles shall be prepared within six months prior to sand placement, promptly upon completion of sand placement (this survey may be terminated offshore at the toe of the project rather than going to closure), and 3 months after completion of sand placement. In addition, beach profile monitoring shall be conducted on a semi-annual basis each spring and fall for five (5) years following completion of sand placement.
- ii. There shall be a minimum of one profile through the South Ponto Beach receiver site, and at least one profile up-coast and two profiles down-coast of this receiver site.
- iii. Monitoring information shall be analyzed regularly for any changes that have occurred at the receiver sites. To the extent practicable, these reports shall incorporate information from the San Diego Regional Monitoring Program on both historic changes at the receiver sites and on-going regional shoreline trends.
- iv. A site specific determination of the current location of the Mean High Tide Line (MHTL) shall be conducted at the receiver site prior to beach nourishment, with the consultation and written confirmation of the State Lands Commission.
- v. Oblique aerial photographs of the receiver sites shall be taken semi-annually during the first two years following the completion of sand placement, and annually during Year 3 and Year 4 following completion of sand placement.
- vi. Annual monitoring reports and a final report evaluating long-term effects of the sand placement shall be submitted to the Executive Director, NMFS, CDFW, and USACE.

The permittee shall undertake development in conformance with the approved final plan 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.

3. Surf Monitoring Plan. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director, for review and written approval, a Surf Monitoring Plan to visually monitor surfing conditions at and adjacent to South Ponto Beach before and after sand placement. The Surf Monitoring Plan shall include, at a minimum, the following:

- (a) Identify the major surfing breaks at and adjacent to South Ponto Beach and determine appropriate monitoring sites;
- (b) Document morning conditions using a standardized data sheet, with video recording as appropriate, as follows:
 - i. Pre-construction monitoring shall begin two weeks prior to sand placement, and take place 3 times per week over 14 days; and
 - ii. Post-construction monitoring shall begin within two weeks following completion of sand placement, and take place 3 times per week over 30 days.

- (c) Surf monitoring shall include estimates of wave height, type of wave (hollow or mushy), breaker distance from shore, length of peel, and existence of backwash;
- (d) Conduct standardized interviews with surfers using a questionnaire;
- (e) Estimate the density of surfers at each site surfing site during monitoring; and
- (f) A final report that includes the monitoring results and an analysis of any change in surfing conditions, which shall be submitted to the Executive Director within 90 days of the final survey.

The permittee shall undertake development in conformance with the approved final plan 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.

4. Timing of Dredging and Beach Deposition. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, final plans which incorporate the following:

- (a) Public Access/Timing. Placement of sand on Carlsbad State Beach shall occur outside of the summer season of any year (Memorial Day weekend through Labor Day).
- (b) Sensitive Bird Species/Timing. To avoid potential impacts to the California least tern and western snowy plover breeding period, construction will not be permitted between the dates of March 1 to August 31 of any year.
- (c) California Grunion/Timing. To avoid potential impacts to the California grunion no placement of sand shall occur during the grunion spawning period of March 1 through August 31 of any year.

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

5. Invasive Species. PRIOR TO THE COMMENCEMENT OF DREDGING, the applicant shall provide evidence that dredging of Batiquitos Lagoon can occur without the risk of spreading the invasive green alga *Caulerpa taxifolia* as follows.

- (a) Not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of any dredging authorized under this coastal development permit, the applicant shall undertake a survey of the project area dredged area, anchoring areas, and any other areas where the bottom could be disturbed by project activities) and a buffer area at least 10 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 Wildlife, and the National Marine Fisheries Service.
- (c) Within five (5) business days of completion of the survey, the applicant shall submit the survey:
 - i. For the review and written approval of the Executive Director; and
 - ii. To the Surveillance Subcommittee of the Southern California Caulerpa Action Team (SCCAT).
 - iii. If *Caulerpa* is found, then the NMFS and DFW contacts shall be notified within 24 hours of the discovery.
- (d) If *Caulerpa* is found, the applicant shall, prior to the commencement of dredging, provide evidence to the Executive Director for review and written approval either that the all *Caulerpa* discovered within the project and buffer areas have been eradicated or that the dredging project has been revised to avoid any contact with *Caulerpa*. No changes to the dredging project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

6. **Post Dredging Plans.** Within 60 days of the dredging of the lagoon, final dredging and deposition plans shall be submitted which indicate:

- (a) The lagoon has been dredged consistent with the preliminary plans submitted with the application.
- (b) The South Ponto portion of Carlsbad State Beach has been nourished consistent with the preliminary beach profiles submitted with the application.

7. **Other Permits.** PRIOR TO THE COMMENCEMENT OF DREDGING, the applicant shall submit copies of all other required state or federal discretionary permits from the U.S. Fish and Wildlife Service and the Army Corps of Engineers for the proposed project. Any mitigation measures or other changes for the project required through said permits shall be reported to the Executive Director and shall become part of the project. No changes to the project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determined that no amendment is legally required.

8. **Assumption of Risk, Waiver of Liability and Indemnity Agreement.** By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from wave action; (ii) to assume the risks to the applicant and the

property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

IV. FINDINGS AND DECLARATIONS

A. PROJECT HISTORY/PROJECT DESCRIPTION

Project History

Batiquitos Lagoon was restored to tidal influence in 1997 by the Port of Los Angeles to mitigate impacts of a wetlands fill project (ref. CDP No. 6-90-219). The restoration of Batiquitos Lagoon was designed to create a lagoon with large/deep basins, and to primarily provide fish nursery habitat area. In order to provide such habitat, the restoration also included introduction of eelgrass and cordgrass, both of which rely on good water quality and the tidal action of an open lagoon mouth. However, the combination of large/deep basins and the open condition of the mouth allows sand passing in front of the mouth (through natural sand migration within the littoral cell) to be drawn into the lagoon and deposited in the shoals around Carlsbad Boulevard Bridge and the railroad trestles. If left unmaintained, this leads to the closure of the lagoon mouth and deteriorated water quality and the potential loss of both eelgrass and cordgrass habitats. It was therefore anticipated in the original approval that maintenance dredging would be required to maintain lagoon health. Further, removal of the material trapped in the lagoon and subsequent replacing in the nearshore area will allow that material to continue its natural transport south along the coast.

Since the time of restoration, the Department has performed five maintenance dredge events, all of which have received approval by the Commission (ref. CDP No. 6-90-219 including amendments; CDP 6-10-020). The subject permit application is the sixth maintenance dredge project request.

Project Description

CDFW is proposing to perform maintenance dredging of the Lagoon's Central Basin that would remove 118,000 cubic yards of beach quality sand to be placed south of the lagoon inlet. The project, as proposed, will serve to maintain the tidal lagoon opening and restore the necessary tidal prism. The dredging of sand will be accomplished by an air-quality certified suction dredge (diesel dredge with certification of emissions as required by the Air Resources Board) that will remove sand from the central lagoon basin and pump it via pipe to South Ponto Beach, a part of Carlsbad State Beach, which is owned by the California Department of Parks and Recreation (CDPR). This pipe would be

placed along the upper section of the beach, then along the edge of the bluff to the discharge point to minimize crossings of the beach. Sections of the exposed pipe will be buried to allow crossings for emergency vehicles.

Grain size has been tested and the grain size of the shoal material at the proposed dredge site has been determined to be at least 97.5% consistent with that found at the beach placement site. Additional samples were taken throughout the central basin and in no case were samples found to be less than 80% consistent with beach samples.

All work will be completed between September 15 and March 1 to avoid the California least tern and Western snowy plover nesting seasons. This timing will also avoid grunion spawning season as well as the high recreational use periods on the beaches (Memorial Day weekend to Labor Day).

All staging is proposed within the perimeters of the project itself and the dredge methodology and sand replenishment operations will comply with all applicable Chapter 3 Coastal Act policies.

The current application proposes the removal of the same amount of sediment approved by the Commission in 2010 (118,000 cubic yards). In addition, the proposed location for sand deposition has been the same for all five previous proposals. CDFW has incorporated all previous project modifications required by the Commission regarding timing, staging locations, and dredging practices into the proposed project.

B. 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.

Section 30233 of the Coastal Act states:

(a) 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 in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.

(4) 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.

(5) 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.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

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

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity

of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

Section 30230 and 30231 state, in part, that marine resources shall be maintained and restored where possible and shall promote the highest feasible level of biological productivity. The dredging is designed to allow for the tidal flushing of the lagoon, a necessary action to maintain lagoon health, and to promote ecological productivity. The current levels of sand in the lagoon basin mute tidal influence, which will eventually lead to stagnation, anoxia (lack of oxygen), associated fish kills, and the emigration of protected shorebirds. The dredging of the central basin will restore the core functions of the lagoon, thus promoting a healthier ecosystem.

As noted, a number of marine resources are present in and adjacent to the lagoon. These include endangered bird species, including California least terns and western snowy plovers, as well as California grunion and eel grass beds. Impacts to such resources can occur during construction, as the noise and general activity can cause birds to move out of the area and can prevent grunion from spawning. In addition, dredging can result in the removal of eelgrass. Furthermore, the highly-invasive tropical species *Caulerpa taxifolia* has been found in Agua Hedionda (nearby lagoon to the north), thus the potential spread of *Caulerpa* is an additional marine resource impact concern. Finally, sand nourishment at beaches can impact the diversity and abundance of invertebrates, plants, and birds present on the sandy beaches proposed for nourishment as well as adjacent beaches and intertidal/subtidal areas. As such, protection of these various resources needs to be assured.

To address the potential impacts to endangered birds and the spawning of grunion, the applicant is proposing to limit dredging and sand placement activities to between September 15 and March 1 to avoid the nesting seasons of the California least tern and Western snowy plover. This timing will also avoid the California grunion spawning season. To assure that no dredging or sand placement activities occur during this period, **Special Condition No. 4** addresses the timing of construction to assure that impacts to avian and grunion species do not occur. In addition, **Special Condition No. 7** requires that the applicant provide evidence of obtaining all other State and Federal permits that may be necessary for all aspects of the proposed project because the proposed project includes work within wetlands and tidally influenced areas.

Eelgrass beds currently occupy a large part of the eastern lagoon basin and small sections of the western and central basins, and provide habitat for many fish and invertebrates. However, the existing eelgrass beds in the central basin lie outside of the proposed dredging parameters and no impacts to existing eelgrass habitats are expected as part of this proposed project. Eelgrass was planted as a part of the restoration efforts with the understanding that the lagoon would require occasional dredging, and the specifications

of the original permit regarding dredging authorized the occasional removal of eel grass beds. Additionally, when the lagoon is fully functional, the sheer velocity of the current deters the growth of eel grass in the proposed dredging zone; thus, even if the dredging were designed to avoid the eel grass beds, once dredged, the conditions would not allow for the persistence of the eel grass population in that area of the lagoon.

Regarding the invasive species *Calupera taxifolia*, these organisms have proven to be detrimental to native habitats; and, in 1999, Caulerpa was designated a prohibited species in the United States under the Federal Noxious Weed Act. AB 1334, enacted in 2001 and codified at California Fish and Wildlife Code Section 2300, forbids possession of Caulerpa. In June 2000, Caulerpa was discovered in Aqua Hedionda Lagoon in San Diego County and in August of that year, an infestation was discovered in Huntington Harbor in Orange County. Other infestations are likely. Although a tropical species, Caulerpa has been shown to tolerate water temperatures down to at least 50° F and will rapidly expand in lagoon environments until endemic species become displaced. Although warmer southern California habitats are most vulnerable, until better information is available, it must be assumed that the whole California coast is at risk. All shallow marine habitats could be impacted.

In response to the threat that Caulerpa poses to California's marine environment, the Southern California *Caulerpa* Action Team, SCCAT, was established to respond quickly and effectively to the discovery of Caulerpa infestations in Southern California. The group consists of representatives from several state, federal, local and private entities. The goal of SCCAT is to completely eradicate all Caulerpa infestations. If Caulerpa were allowed to reproduce unchecked within area lagoons, sensitive eelgrass beds and the wildlife that depend upon them would be adversely impacted. Therefore, eradication of Caulerpa would be beneficial for native habitat and wildlife. To date, Caulerpa has not been found in Batiquitos Lagoon. However, in order to assure that the proposed project does not cause the dispersal of Caulerpa, the Commission requires **Special Condition No. 5**, which requires the applicant, prior to dredging, to survey the project area (which includes the dredged area, anchoring areas, and any other areas where the bottom could be disturbed by project activities) for the presence of Caulerpa. If Caulerpa is found in the project area or buffer areas, then prior to commencement of any dredging, the applicant must provide evidence that the Caulerpa within the project or buffer areas has been eradicated (the applicant could seek an emergency permit from the Executive Director to authorize the eradication) or that the dredging project has been revised to avoid any disturbance of Caulerpa. If revisions to the project are proposed to avoid contact with Caulerpa, then the applicant shall consult with the local Coastal Commission office to determine if an amendment to this permit is required.

The dredging of the lagoon mouth will result in the removal of approximately 118,000 cubic yards of material. CDFW has submitted sand grain analyses that indicate this material has been determined to be at least 97.5% consistent with that found at the beach placement site. Therefore, it is proposed, and appropriate, to place this beach-quality sand on adjacent beach area. CDFW is proposing to place the dredged sand material onto South Ponto State Beach, an existing sandy beach area located directly south of the lagoon inlet. This sediment will help nourish this beach temporarily, but will ultimately

return to the littoral cell and will be transported down shore. Such activities, while a benefit to public access and recreation, can result in impacts to marine resources.

Specifically, nourishment at beaches can impact the diversity and abundance of invertebrates, plants, and birds present on sandy beaches and intertidal areas. Beach nourishment can bury kelp wrack washed ashore during high tides as well as disturb plants and invertebrates colonizing the sand. As such, sand replenishment must be carried out in a manner that sustains the biological productivity of coastal waters. Thus, to better address these concerns, the Commission has included ecological monitoring as a condition of approval for recent projects that include deposition of sand on the beach (ref. CDP Nos. 6-16-0275/San Elijo Lagoon Restoration; 4-15-0390/Broad Beach GHAD).

However, in this particular case, the Commission's ecologist has determined that detailed ecological monitoring is not necessary to evaluate impacts associated with the proposed sand deposition, because the 118,000 cubic yards of replenishment material slated for South Ponto Beach, while not an insignificant volume, is unlikely to result in any significant ecological impacts. The amount currently proposed to be placed on South Ponto Beach is a similar amount to that placed there numerous times before, including in 2001 (118,000 cubic yards) associated with the Regional Beach Sand Project I (ref. CDP No. 6-00-038); in 2011 (112,000 cubic yards) associated with a previous CDFW maintenance dredging project (ref. CDP No. 6-10-020), and less than the volume placed in 2012 (140,000 cubic yards) associated with the Regional Beach Sand Project II (Ref. CDP No. 6-11-018). Thus, the beach in this location has a long history of receiving dredged sand in the amount proposed. The advantage to continuing to place sand at this receiver beach is that any impacts to marine species at and around the site have previously occurred here, and no new or additional impacts are expected to result from the current project.

In addition, the sand being proposed to be placed on the beach is being brought into the lagoon directly from the littoral cell. Specifically, during high tides sand is sucked into the lagoon and then becomes trapped by the bridge overcrossings of Carlsbad Boulevard and the NCTD rail corridor (ref. Exhibit Nos. 1, 2). This sand would otherwise continue along downshore through normal sand transportation processes. As such, the sand being deposited is not a new source of sand into the littoral cell, but rather replacement of sand that was already within the littoral cell that has become trapped by tidal activity and the presence of infrastructure within the restored lagoon. In other words, the project mimics the sand placement that would occur naturally in this location were it not for the artificial development of a permanent lagoon inlet, necessary to support the restoration efforts within the lagoon. This type of sand bypass activity is further less likely to result in significant, long-term ecological impacts because the dredged sand originated from the littoral cell and so therefore is similar to the native beach sand already present on the receiver beach.

It is important to note that while maintenance dredging is considered a necessary part of maintaining a healthy and functioning restored lagoon system, as originally designed, the maintenance dredging was anticipated to occur every one or two years. The last two dredging proposals by CDFW have been after a number of years without maintenance,

and in this case, dredging has not occurred since 2012. This delay in maintenance dredging has resulted in a larger amount of sand that needs to be removed, which also increases the amount of sand proposed to be deposited on South Ponto Beach. Ideally, CDFW would continue maintenance activities on a more frequent basis, which would reduce the amount of sand placed on the beach during each event and would minimize the amount and duration of tidal muting that would occur within the lagoon. Historically, CDFW has been the sole entity responsible for such maintenance activities, through the establishment of an endowment as a part of the original lagoon restoration. Unfortunately, this endowment has proven to be insufficient to fund adequate ongoing maintenance of the lagoon. As such, maintenance dredging has been postponed until there was enough funding to pay for the dredging. However, this dredging and future ongoing inlet maintenance of Batiquitos Lagoon will now be wholly funded by Caltrans and the San Diego Association of Governments (SANDAG) as a part of a larger, regional mitigation package (REMP) to address impacts resulting from implementation of the highway, rail, and community enhancement projects in the North Coast Corridor Public Works Plan and Transportation and Resource Enhancement Program (NCC PWP/TREP). As such, it is anticipated that CDFW will now have funding adequate to facilitate future maintenance activities on a smaller-scale and more frequent basis. This will not only reduce any potential impacts on marine resources associated with high volume of sand placement, but will also decrease the amount of tidal muting between dredge cycles.

As such, in this case, the Commission has determined that because of the specific set of circumstances discussed above, requiring ecological monitoring for this specific project is not appropriate at this time. However, in the future, when additional maintenance dredging at Batiquitos Lagoon is proposed, if the potential for new or additional impacts to ecological resources is identified, ecological monitoring similar to other projects approved by the Commission may be required.

Finally, Section 30233 requires that dredging of open coastal waters shall only be permitted when there is no feasible less environmentally-damaging alternative, where feasible mitigation measures have been provided to minimize adverse environmental effects, where such dredging is one of the permitted uses cited, and where functional capacity of the wetland is maintained or enhanced. In the case of the subject proposal, the Commission has previously found that the Batiquitos Lagoon Enhancement Plan represented a restoration project for the lagoon and was consistent with Section 30233. The proposed project will enhance the functional capacity of the lagoon. Because the proposed maintenance dredging was anticipated to assure the continued success of the restoration of Batiquitos Lagoon, it can also be found a permitted use under Section 30233 and is proposed as the least environmentally damaging alternative. **Special Condition No. 1** requires that the applicant be restricted to the use of the one designated staging area in order to minimize the impact to marine resources. With respect to the proposed dredging of the lagoon in this application, no new impacts will occur to sensitive habitat areas covered by the restoration plan.

In summary, the proposed dredging is necessary to restore tidal prism to Batiquitos Lagoon to assure success of previously approved restoration efforts. The proposed dredging is a permitted use under Section 30233 of the Coastal Act and as conditioned;

no adverse impacts to sensitive coastal resources are anticipated. Therefore, the Commission finds the proposed work, as conditioned, is consistent with Section 30230, 30231 and 30233 of the Coastal Act.

C. PUBLIC ACCESS/BEACH REPLENISHMENT

Section 30604(c) of the Coastal Act states:

Every coastal development permit issued for any development between the nearest public road and the sea or the shoreline of any body of water located within the coastal zone shall include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter.

Section 30210 of the Coastal Act states:

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

Section 30211 of the Coastal Act states:

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

Section 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.

Section 30233(b) of the Coastal Act states:

Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

The subject proposal involves dredging the Central basin of Batiquitos Lagoon, including placement of dredged spoils on the adjacent South Ponto Beach. There are several provisions of the Coastal Act that are applicable to the proposed project and encourage use of suitable dredged material to supply the region's littoral zones with sand. Such deposition of beach quality material on the region's shoreline will create and protect

coastal recreational areas for use by the general public, consistent with the cited Coastal Act policies. The above language in Section 30233(b) clearly suggests the benefit of restoring the region's beaches through use of material that would otherwise reach the shoreline, but for human intervention by development and flood control projects. Therefore, the Commission finds that when dredged material is compatible with and suitable for use as beach sand along the region's shoreline, it should be transported to the shoreline for such use, as is proposed herein, to support the public access and recreation policies of the Act.

Sand grain analyses were completed on the lagoon sediment and determined that the grain size of the lagoon sediment is at least 97.5% consistent with the sand on South Ponto Beach. As such, the sand proposed for removal is considered beach quality and should be placed on the adjacent beach area, consistent with Sections 30233(b) and 30235 of the Coastal Act. **Special Condition No. 6** requires that the applicant submit a report within 60 days of completion verifying Carlsbad State Beach has been nourished consistent with the preliminary beach profiles submitted with the application.

It is difficult to estimate precisely how long the fill sand will remain on the beach; and therefore, how long the public will have the benefit of wider sandy beaches. Historically, sand has been placed on beaches with very little or no monitoring of the sand profile over time. To date, all previous sand placement projects on South Ponto Beach by CDFW have been approved by the Commission absent any requirement for monitoring. It is only recently that the Commission, as well as numerous other stakeholders, have identified the value and need to include monitoring to help stakeholders better predict and determine how long the sand is retained on beaches and where it moves post-nourishment. As such, **Special Condition No. 2** requires the applicant to submit a Shoreline Monitoring Plan for review and approval by the Commission. This condition further requires the applicant to submit reports to the Commission annually. The required monitoring would be similar to the Regional Shoreline Monitoring Program initiated by SANDAG in 1996, which measures the beach width over time at beaches in San Diego County and includes a number of transects at South Ponto State Beach. Using a similar methodology in this case would allow the data collected following the proposed project to be compared to the historic results collected through SANDAG's Regional Shoreline Monitoring Program. In addition, SANDAG recently approved the continuation of the Regional Shoreline Monitoring Program. And, because SANDAG is now a partner to the maintenance of Batiquitos Lagoon, there is an opportunity for CDFW to use the monitoring already being conducted by SANDAG to meet the requirements of **Special Condition No. 2**.

The significant public access and recreation benefits associated with the proposed beach nourishment activities would be accompanied by potential adverse effects on public access and recreation, including temporary closure of portions of the beach, construction equipment on the beach at and near the point of sand discharge, and potential changes to surfing conditions due to the introduction of a large quantity of sand and its migration into the littoral system over time. Therefore, measures need to be included to eliminate and minimize any such impacts to the extent feasible.

Section 30604(c) of the Coastal Act requires a public access finding to be made for projects located between the sea and the first coastal road; in this case, such a finding can be made for the proposed development, with the inclusion of **Special Condition No. 4**. This condition requires that the sand replenishment component of the permit be completed during the winter months, when the least number of visitors are present, to reduce the impact on public access, as required by Sections 30210, 30211, 30221, and 30233(b).

Section 30210 of the Coastal Act requires that access to the shoreline be provided consistent with public safety needs. The Department of Fish and Wildlife is proposing to implement a public safety and access program consisting of signs, flagging and sand bridges over discharge pipes in the project area to ensure that people walking, as well as beach maintenance and emergency vehicles, have safe access to and along the beach during replenishment operations. At no point is closure of the entire beach anticipated, however, public access will be restricted to portions of the beach throughout the dredging and sand replenishment process.

Section 30211 requires that development not interfere with the public's access to coastal resources including the use of dry sand. While the sand replenishment on South Ponto Beach will restrict the public's access to the immediate coastal resources temporarily, the sand placement activities will result in benefits to public access in the long term. The beach area south of the lagoon inlet is subject to consistent wave action and is classified as an eroding beach. Thus, sand replenishment will enlarge both the depth and breadth of the shoreline on South Ponto Beach, providing for increased public access and beach recreation opportunities. Therefore, it is consistent with section 30211 of the Coastal Act.

Section 30221 protects shoreline suitable for recreational use. The project area is within a State Park Region, frequented by numerous visitors. There is a sand volleyball court located within the portion of the beach where sand replenishment will take place. The volleyball court will be removed temporarily; however, without the additional sand, the beach would be comprised of cobble stone and rock, which is not conducive for sand volleyball. While the sand placement will temporarily interrupt the recreational use outside the summer months, the increased amount of sand will add to the longevity of this recreational component. The main users of the sand court are aware of the proposal and are in favor of the sand replenishment. [exhibit supportive comment]

Another recreational activity that is at risk from proposed beach nourishment is surfing. There are several surf sites at or downcoast from the receiver site, including South Ponto, Leucadia (Beacons) and Grandview. As such, **Special Condition No. 3** requires the applicant to monitor the surf zone at South Ponto prior to commencement of nourishment activities and immediately following nourishment activities and to submit a monitoring report to the Commission.

In summary, the proposed project will have short-term impacts on public access and recreation, which have been minimized by conditions requiring that beach nourishment activities be conducted outside the summer season and that staging be designed to have

the least impact on public access. Overall, the project will have a positive impact on public access and recreational opportunities at South Ponto Beach, and the required monitoring program will provide valuable information on the movement of sand along the shoreline that will be useful in planning and designing future sand replenishment projects. Therefore, as conditioned, the proposed project is consistent with the public access and recreation policies of the Coastal Act.

D. LAND RESOURCES

Section 30240 of the Coastal Act states:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

While the lagoon dredging itself does not pose major issues to any upland based environmentally sensitive habitat, the set-up/break down of equipment and sand replenishment operations have potential concerns. The staging areas to be used for dredging operations are limited by **Special Condition No. 1** to the E1 least tern nesting island in the western basin, a sandy island constructed during the initial restoration of Batiquitos Lagoon to provide safe nesting area(s) for protected bird species. Pursuant to this condition, the loading and launching of the dredge will be from one of the shorebird nesting islands. The least terns require habitat free of vegetation, thus the stewards of the lagoon often remove any vegetation from these islands to allow for nesting. As a result, the placement of equipment will not disturb vegetation required for nesting. Further, as required by **Special Condition No. 4**, dredging will start and finish outside the breeding season, hence the nesting islands will not be in active use. Thus, no environmentally sensitive habitats will be negatively impacted during set up or break down of the dredging equipment.

Dredging activities will direct the lagoon sand through High Density Polyethylene (HDPE) piping to be deposited directly on the designated southern beach placement site. As such, no transportation of the sand over sensitive habitat is necessary. There is an environmentally sensitive habitat located just east of the replenishment area on South Ponto beach. This region is separated by a barrier, and design plans show that the project will take place a safe distance from this area. No negative impacts to the surrounding sensitive habitats are expected. The project has been designed to minimize negative impacts and the grain size is well suited for the replenishment site. The proposed project is thus found to be in conformance with the Chapter 3 policies of the Coastal Act, as conditioned.

E. LOCAL COASTAL PLANNING

Section 30604 (a) requires that a coastal development permit shall be issued only if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act. In this case, such a finding can be made for the proposed development, with the inclusion of the attached conditions.

The project is located in the City of Carlsbad, which has a certified LCP. However, this project is located within Batiquitos Lagoon and thus is within the Commission's original jurisdiction. In 1992, the Commission approved CDP #6-90-219 for enhancement of Batiquitos Lagoon. A critical key to success of the approved enhancement plan is to maintain an open lagoon mouth and specified tidal prism. Beach sands and sediments have accumulated within the central basin, which now threaten the enhancement efforts due to the reduction in the tidal prism. Approval of the proposed project to remove these sediments/sands is consistent with previous Commission action on the original project. Therefore, approval of the proposed dredging, as conditioned, is consistent with Chapter 3 policies of the Coastal Act and will not prejudice the ability of the City of Carlsbad to continue implementing its certified LCP.

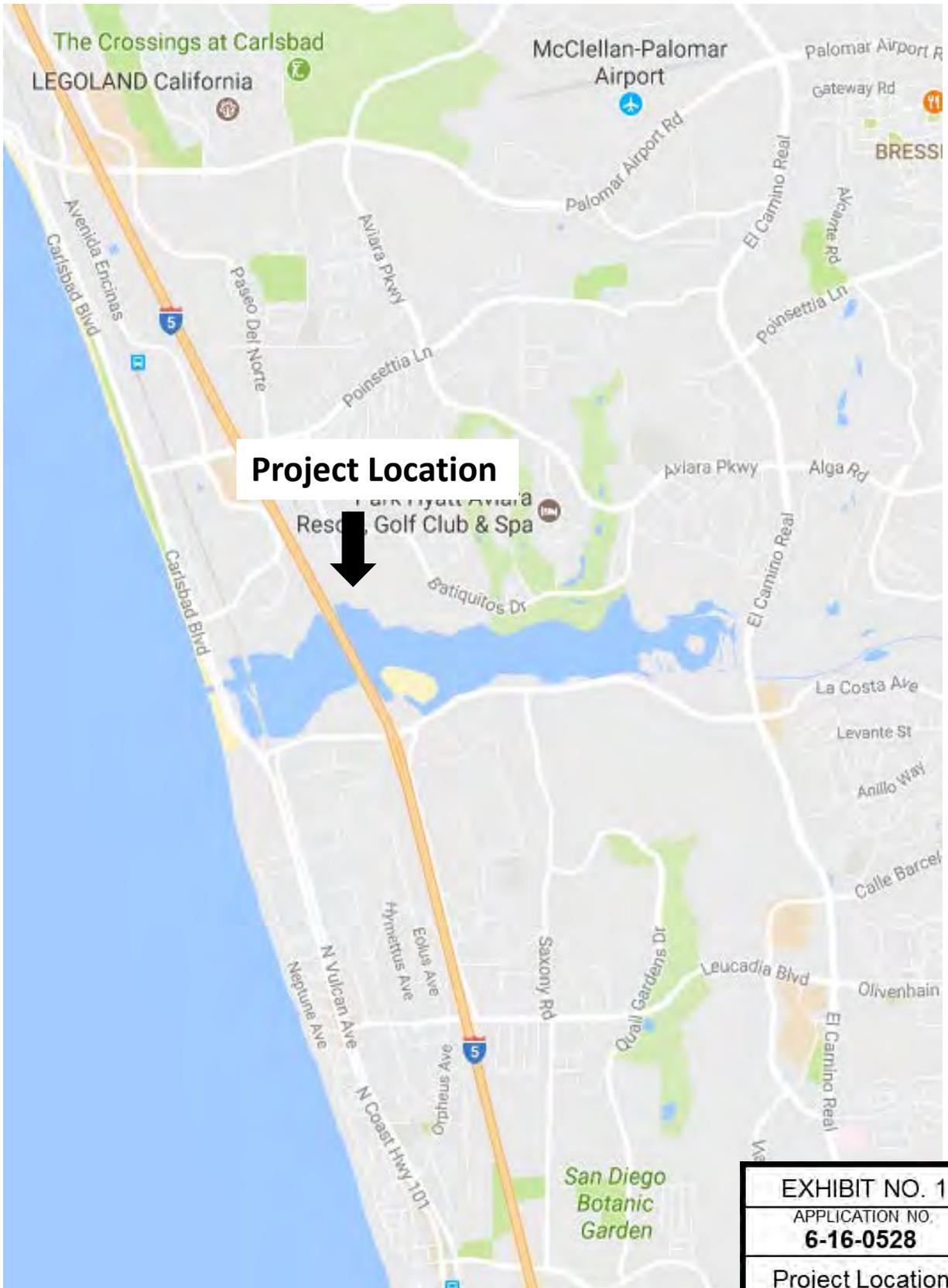
F. CALIFORNIA ENVIRONMENTAL QUALITY ACT

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

The project is located within Sovereign Lands of the State and California and is considered to be Categorical Exempt under CEQA because CDFW found the project exempt as a restoration activity . As conditioned, the proposed project is consistent with the resource protection policies of the Coastal Act. Mitigation measures, in the form of seasonal restrictions, monitoring requirements and a requirement to survey for *caulerpa taxifolia* prior to dredging, will avoid all 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, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

- City of Carlsbad Certified East Batiquitos Lagoon/Hunt Properties segment
- Batiquitos Lagoon Enhancement Project Final EIR/EIS (City of Carlsbad and U.S. Army Corps of Engineers)
- Batiquitos Lagoon Enhancement Project Draft Preliminary Design Report (February, 1988)
- 2015 Batiquitos Lagoon Sediment Survey prepared by Marine Taxonomic Services and dated March, 2015
- Coastal Commission CDP No. 6-90-219 with amendments A-1 through A-10;
- Coastal Commission CDP No. 6-10-020



Project Location



EXHIBIT NO. 1
APPLICATION NO. 6-16-0528
Project Location
 California Coastal Commission



Batiquitos Lagoon ER Dredge

16-0528
Eigner CDFW May 2016

EXHIBIT NO. 2
APPLICATION NO. 6-16-0528
Aerial Including Proposed Development
California Coastal Commission