

Staff Report 70

APPLICANT:

City of Encinitas and City of Solana Beach

PROPOSED ACTION:

Issuance of a General Lease – Public Agency Use

AREA, LAND TYPE, AND LOCATION:

Sovereign land in the Pacific Ocean, near Encinitas and Solana Beach, San Diego County.

AUTHORIZED USE:

Dredging of the Pacific Ocean from borrow sites designated SO-5 and SO-6; placement of a 50-foot-wide beach fill along a 7,800-foot-long stretch of shoreline in the City of Encinitas with 340,000 cubic yards (cy) of compatible sediment with re-nourishment of 220,000 cy every 5 years on average; and placement of a 150-foot-wide beach fill along a 7,200-foot-long stretch of shoreline in the City of Solana Beach with 700,000 cy of compatible sediment with re-nourishment of 290,000 cy every 10 years on average; under the San Diego County, CA Project (formerly known as the Encinitas – Solana Beach Coastal Storm Damage Reduction Project).

TERM:

49 years, beginning February 28, 2023.

CONSIDERATION:

Public use and benefit; with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interests.

SPECIFIC LEASE PROVISIONS:

- Prior to each beach replenishment event, Lessee shall provide Lessor a mean high tide line survey of the receiver site for Lessor's staff review.

- Lessee must update its Monitoring Plans to account for the best available climate change science, resource availability, and sea level rise projections.
- One year before each replenishment event, Lessee must provide to Lessor's staff copies of all annual mitigation monitoring compliance reports for replenishment activities within the Lease Premises.
- Upon request, Lessee must provide Lessor's staff with copies of the semiannual beach profile surveys required by the Shoreline Monitoring Plan.
- Upon request, Lessee must promptly provide copies of any report, survey, data, or other document required by a mitigation measure or monitoring plan.
- Prior to the start of each beach replenishment event as described within the lease, Lessee shall provide Lessor with the name, address, telephone number, and license number(s) of the contractor(s) selected to implement the beach replenishment program.
- Lessee shall safely conduct all dredging and disposal operations in accordance with accepted dredging and disposal methods and practices and with due regard for the protection of life and property and preservation of the environment.

BACKGROUND:

The United States House of Representatives authorized The Encinitas and Solana Beach Shoreline Feasibility Study through two actions. On May 13, 1993, the House Public Works and Transportation Committee authorized investigation of the feasibility of providing shore protection improvements in and adjacent to the City of Encinitas. On April 22, 1999, the House Committee on Transportation and Infrastructure authorized a study of the shoreline along the City of Solana Beach. The overall purpose of these studies was in the interest of storm damage reduction, beach erosion control, and environmental restoration and protection. The House Committees authorized the Secretary of the Army, through the Chief of Engineers, to conduct the investigation and study.

The Encinitas and Solana Beach Feasibility Study (Study) is a coastal storm damage reduction study to analyze alternatives that improve public safety and protection of state and city owned lands, roads, and infrastructure along the entire shoreline within the contiguous municipalities of Encinitas and Solana Beach. The Study describes existing and future without-project conditions of the area and identifies problems and opportunities to reduce storm damages, improve public safety, increase recreation opportunities, and protect the environment. The Study evaluates the potential effects of implementing the alternatives and identifies the mitigation measures needed to avoid, minimize, rectify, reduce, or compensate for those effects.

The Study was initiated in September 1999. The feasibility phase of the Study began in 2000 with the United States Army Corps of Engineers (Army Corps) signing a Feasibility Cost Sharing Agreement with the Cities of Encinitas and Solana Beach. The Study produced a public draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) in 2005.

Between 2007 and 2012, the project description, assessment methodologies, and alternatives underwent thorough review and evaluation. Based in part on regulatory changes and the Army Corps guidance on sea level rise, San Diego Association of Governments' (SANDAG) Regional Beach Sand Project (RBSP) post-construction monitoring results, offshore borrow site investigations, revisions to the bluff erosion model and pre-project baseline physical conditions, additional work was required to ensure that the project was being designed in such a way that it will be resilient to uncertain future conditions and responsive to concerns expressed by the public and regulatory agencies in their comments on the 2005 Draft EIS/EIR.

The Final EIS/EIR was certified in October 2015, and reflects the updated descriptions and methodologies from numerous public outreach periods. The Coastal Storm Damage Reduction Project has been prepared based on the Final EIS/EIR.

STAFF ANALYSIS AND RECOMMENDATION:

AUTHORITY:

Public Resources Code sections 6005, 6216, 6301, 6303, 6501.1, and 6503; California Code of Regulations, title 2, sections 2000 and 2003.

PUBLIC TRUST AND STATE'S BEST INTERESTS:

Erosion of the beaches and coastal bluffs in the San Diego region has occurred at an increasing rate over the past several decades. As a result, wave-induced flooding and structural damages have increased significantly over the past 20 years from a combination of factors. Shoreline erosion has narrowed the beaches and depleted them of sand, resulting in an increased vulnerability of coastal bluff erosion from waves. By implementing the [San Diego County, CA Project \(Project\), formerly known as the Encinitas – Solana Beach Coastal Storm Damage Reduction Project](#), the Cities of Encinitas and Solana Beach (Applicant) aim to reduce coastal storm damage and maintain and enhance the existing shoreline and recreational beaches. The USACE will conduct the dredging and material placement activities and the Applicant will conduct the pre- and post-placement surveys and monitoring.

The Applicant's Project is similar to the Regional Beach Sand Project (RBSP), which is an ongoing project implemented by SANDAG. The RBSP also includes the dredging of sediment from offshore borrow sites and nourishes several beaches along the coast of San Diego. The proposed receiver sites in the Project are considerably larger in area. For the City of Encinitas, the Project proposes beach nourishment along 7,800 feet of shoreline, from Daphne Street to the north and West H Street to the south. The City of Solana Beach, under the proposed Project, will receive beach nourishment along 7,200 feet of shoreline, from Solana Vista Drive to the north and Via De la Valle to the south.

Beach nourishment activities are designed to increase and enhance recreational opportunities at beaches for both residents and visitors by extending the width of beaches. The Applicant is seeking authorization from the Commission for its Project, to extend the width of the beach an additional 50 feet seaward for the City of Encinitas with renourishment cycles, on average, every five years, and 150 feet seaward for the City of Solana Beach with renourishment cycles, on average, every 10 years. This will result in a new mean beach profile width of 160 feet for the City of Encinitas and 220 feet for the City of Solana Beach.

The City of Encinitas will receive an initial placement of 340,000 cy of sand, and a renourishment of 220,000 cy every five years, on average. The duration of the initial sand placement is estimated to take between 25 to 45 days, with subsequent renourishment to take between 15 to 35 days per renourishment event. At the end of the 49-year project period, it is estimated that approximately 2.32 million cy of sand will be placed for the Encinitas segment.

The City of Solana Beach will receive an initial placement of 700,000 cy of sand, and a renourishment of 290,000 cy every ten years, on average. The duration of the initial sand placement is estimated to take between 35 to 45 days, with subsequent renourishment to take between 20 to 40 days per renourishment event. At the end of the 49-year project period, it is estimated that approximately 1.87 million cy of sand will be placed for the Solana Beach segment.

The dredged material will come from three offshore borrow sites in the Pacific Ocean, within the three geographic miles of the State's jurisdiction. The borrow site refers to a larger location that has been investigated for the Project in terms of sediment characteristics, marine resources, seabed elevation, etc. Within the large area, there are three specific borrow sites identified based on compatibility with the existing beach material and have already been defined and dredged for prior beach replenishment activities, including for the RBSP. The three borrow sites are identified as MB-1, SO-5, and SO-6, and are located offshore along the coast from Encinitas to Mission Beach in relative proximity to the receiver sites. Borrow site MB-1

is located approximately 3,000 feet offshore from Mission Beach and located within lands legislatively granted to the City of San Diego pursuant to Chapter 688, Statutes of 1933. SO-5 is located approximately 4,500 feet offshore from the San Elijo Lagoon at the southern end of Encinitas. SO-6 is located approximately 4,500 feet offshore of the San Dieguito River south of Solana Beach. Material from SO-5 will be used as the primary nourishment source for both Encinitas and Solana Beach and will be the primary source for the initial placement. If SO-5 nourishment resources are exhausted, MB-1 and SO-6 will provide material for both segments.

The beach nourishment operations will include the use of dredge vessels, which will dredge the sediment from the offshore borrow sites and transfer the sediment to the proposed receiver sites. One of two types of dredge vessels will be used: a hopper dredge or a cutterhead suction dredge. For both the hopper and cutterhead dredging methods, sand will be combined with seawater to produce a slurry. The slurry will then be conveyed to the beach either by pipeline or a combination of hopper dredge and pipeline. At the receiver sites, existing sand will be used to create "L" shaped berms to anchor sand placement operations. The slurry will be pumped onto the beach in the angle of the "L" shaped berm. As the material is deposited behind the berm, the sand will be spread using two bulldozers and one front-end loader to direct the flow of the sand slurry and form a gradual slope to the existing beach elevation. The berms will be subject to the forces of the waves and weather and will eventually settle down to a natural grade of the beach.

Beach nourishment activities will occur on a 24-hour, 7-days a week basis, by operating three-shifts per day. Beach operations such as the operation of sand spreading equipment will typically occur during the day with the potential of continuing into the night. Approximately two days will be required to set up the pipeline leading from the borrow site to the receiver site. The daily production rate will be 10,000 to 15,000 cy. Construction access for the Encinitas segment will be located at Moonlight Beach. The area will be fenced off and will still allow public access to facilities such as volleyball courts, restrooms, picnic areas, and the snack bar. Construction access for the Solana Beach segment will be located at the Fletcher Cove parking lot and Cardiff State Beach (also referred to as Seaside). Fletcher Cove does not allow access to larger pieces of equipment and vehicles, as the location is too narrow. Therefore, equipment will travel between the staging areas, and only when sufficient sandy beach exists.

Almost all properties landward of the beach nourishment sites are beaches owned and or managed by the cities of Solana Beach and Encinitas. One proposed staging area for the Solana Beach segment, the Cardiff State Beach parking lot, is owned by the California Department of Parks and Recreation and coordination for

its use is in progress. The primary use of the receiving shoreline is for recreational activities. These include swimming, surfing, fishing, nature study, SCUBA diving, volleyball, sunbathing, running, and walking, etc. Sand placement is proposed on the beach and in the surf zone to reduce coastal damage from storms, enhance these recreational uses, and restore beach habitat.

Construction will be carried out in a way that public access will only be impacted at the point of discharge and near the staging areas. Approximately 200 feet of beach will be inaccessible to the public around the discharge pipeline and berms. Additionally, there will be intermittent restrictions on public access for approximately 200 feet on either side of the discharge zone for the maneuvering of heavy equipment during construction of the temporary berm and relocation of the discharge pipelines. Overall, the time of possible limited public access will be anywhere from 10-45 days every 5 or 10 years.

The required permits and authorizations from both the California Coastal Commission and San Diego Regional Water Quality Control Board have been approved. The application for the required permit from the California Department of Parks and Recreation has been submitted and is pending approval. Additionally, noise variance approvals from the Applicant are also pending approval.

The proposed lease will require the Applicant to comply with the attached Exhibit C, Mitigation Monitoring Program (MMP) during sand placement to avoid potential impacts to, Western snowy plovers and California grunion. Construction activities will only occur during the time when these species are not on site.

The proposed 49-year lease term is the maximum allowed by the Commission's regulations. Staff often recommends shorter lease terms to allow the Commission to reassess best management practices and a proposed use's environmental context and impacts considering sea-level rise and climate change. As detailed in the EIR/EIS, the project is not expected to have any significant environmental impacts after mitigation, and the MMP includes numerous monitoring commitments, including for impacts the EIR/EIS concluded to be less-than-significant, and commitments to mitigate those impacts if they occur. Additionally, the proposed lease requires the Applicant to update all monitoring plans to account for the best available climate change science, resource availability, and sea level rise projections. And, as discussed in the Climate Change section, while increased sea-level rise may impact the efficacy of the project, the project would not exacerbate sea-level rise or other climate change impacts. Conversely, the project's objective is to lessen those sea-level rise impacts on California's public beaches and improve public access to California's beaches and is federally funded for 50 years. Therefore, staff recommends a 49-year lease term.

CLIMATE CHANGE:

Climate change impacts, including sea level rise, more frequent and intense storm events, and increased flooding and erosion will affect this lease area. The lease area is located in the cities of Encinitas and Solana Beach, San Diego County, in a tidally influenced site vulnerable to flooding and erosion at current sea levels that will be at high risk of flood exposure throughout the lease term based on the projected scenarios of sea level rise in this area.

The California Ocean Protection Council updated the *State of California Sea-Level Rise Guidance* in 2018 to provide a synthesis of the best available science on sea level rise projections and rates. Commission staff evaluated the “high emissions,” “medium-high risk aversion” scenario to apply a conservative approach based on both current emission trajectories and the lease location and structures. The La Jolla tide gauge was used for the projected sea level rise scenario for the region as listed in Table 1.

Table 1. Projected Sea Level Rise for La Jolla

Year	Projection (feet)
2030	0.9
2040	1.3
2050	2.0
2100	7.1

Source: Table 13, [State of California Sea-Level Rise Guidance: 2018 Update](#) Note: Projections are with respect to a 1991 to 2009 baseline.

The project's EIR was certified in 2015, prior to the most recent sea level rise science and guidance issued in 2018 by the Ocean Protection Council. It was also certified before the USACE's own most recent sea level rise guidance, issued in 2019. It therefore reflects outdated sea level rise projections to inform its plans for nourishment events and monitoring. The project was planned using a low and high estimate of sea level rise that were based on methodologies and research that are no longer used, and are underestimates. These projections should be updated after the first two years of monitoring the initial nourishment event to facilitate adaptive management of the project and its many components (including but not limited to sand volumes per nourishment event, intervals between nourishment events, and viability thresholds of nourishment events) that are based on the projections of sea level rise.

Sea level rise will cause total water levels to rise in Encinitas and Solana Beach areas and will cause frequent inundation of the lease areas. In addition, as stated in [Safeguarding California Plan: 2018 Update](#) (California Natural Resources Agency 2018), climate change is increasing the frequency and severity of storms and rain

events, causing more flooding in low-lying areas. In rivers, creeks, and tidally influenced waterways, higher water levels from sea level rise and flooding will cause damage such as beach erosion to the lease area as well as impact beach-front infrastructures. Storm debris and water-borne contaminants may constitute additional hazards to the lease areas. Higher rates of erosion and sedimentation from flooding, storm flow, and runoff will likely increase scour and further decrease beach width and structural integrity of adjacent harbor structures.

As the total water levels along Encinitas and Solana Beach areas increase with sea level rise, erosion along the coastline fronting these communities will increase. The proposed dredging and beach nourishment actions will increase beach sand volumes to widen beaches and stabilize infrastructure within the lease areas. The dredging from the identified borrow site and sand placement would allow for the continued recreation and public access along the city beaches. The lessee is responsible for protecting the lands, resources, and values of the Public Trust within the lease area and should be aware that these changes are very likely to occur and impact not only the current footprint of the lease area, but the adjacent areas within the Encinitas and Solana Beach area as well over the course of the lease.

The proposed lease is a 49-year General Lease – Public Agency Use that begins in 2023 and will be subject to the climate change effects of the projected sea level rise scenario provided above.

Regular dredging from the identified borrow area and beach nourishment, as referenced in the lease, may reduce the likelihood of severe erosion and structural degradation, and possible dislodgement within adjacent areas along Encinitas and Solana Beach areas. Pursuant to the proposed lease, the Applicant acknowledges that the lease premises and adjacent areas are in an area that may be subject to the effects of climate change, including sea level rise.

CONCLUSION:

For the reasons stated above, staff believes the issuance of the proposed lease will not substantially impair the public rights to navigation, fishing, or other Public Trust needs and values at this location, at this time, and for the foreseeable term of the lease; and is in the best interests of the State.

OTHER PERTINENT INFORMATION:

1. Approval or denial of the application is a discretionary action by the Commission. Each time the Commission approves or rejects a use of sovereign

land, it exercises legislatively delegated authority and responsibility as trustee of the State's Public Trust lands as authorized by law.

2. This action is consistent with the "Leading Climate Activism" and "Meeting Evolving Public Trust Needs" Strategic Focus Areas of the Commission's 2021-2025 Strategic Plan.
3. An EIR/EIS, State Clearinghouse No. 2012041051, was prepared for this project by the City of Solana Beach and certified on October 14, 2015. As part of its project approval, the City of Solana Beach made a Statement of Facts and Findings and adopted a Mitigation Monitoring and Reporting Program.

Staff has reviewed these documents and prepared an independent Mitigation Monitoring Program (MMP) (attached, Exhibit C) that incorporates the City of Solana Beach's document and recommends its adoption by the Commission.

Staff also prepared Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15091, 15096) are contained in the attached Exhibit D.

4. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon staff's consultation with the persons nominating such lands and through the California Environmental Quality Act (CEQA) review process, it is staff's opinion that the project, as proposed, is consistent with its use classification.

APPROVALS OBTAINED:

U.S. Army Corps of Engineers
California Coastal Commission
San Diego Regional Water Quality Control Board

APPROVALS REQUIRED:

United States Coast Guard
California Department of Parks and Recreation

EXHIBITS:

- A. Land Description
- B. Site and Location Map
- C. Mitigation Monitoring Program
- D. Statement of Findings

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that an EIS/EIR, State Clearinghouse No. 2012041051, was prepared for this project by the City of Solana Beach and certified on October 14, 2015, and that the Commission has reviewed and considered the information contained therein.

Adopt the Mitigation Monitoring Program, as contained in the attached Exhibit C.

Adopt the Findings, made in conformance with California Code of Regulations, title 14, sections 15091 and 15096, subdivision (h), as contained in the attached Exhibit D.

PUBLIC TRUST AND STATE'S BEST INTERESTS:

Find that issuance of the proposed lease will not substantially impair the public rights to navigation and fishing or substantially interfere with the Public Trust needs and values at this location, at this time, and for the foreseeable term of the lease; and is in the best interests of the state.

SIGNIFICANT LANDS INVENTORY FINDING:

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

AUTHORIZATION:

Authorize issuance of a General Lease – Public Agency Use to the Applicant beginning February 28, 2022, for a term of 49 years, for the dredging of the Pacific Ocean from borrow sites designated SO-5 and SO-6; placement of a 50-foot wide beach fill along a 7,800 foot-long stretch of shoreline in the City of Encinitas with 340,000 cubic yards (cy) of compatible sediment with re-nourishment of 220,000 cy every five years on average; and placement of a 150-foot wide beach fill along a

7,200 foot-long stretch of shoreline in the City of Solana Beach with 700,000 cy of compatible sediment with re-nourishment of 290,000 cy every 10 years on average; under the San Diego County, CA Project as described in Exhibit A and shown on Exhibit B (for reference purposes only) attached and by this reference made a part hereof; consideration is the public use and benefit, with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interests; liability insurance in an amount no less than \$1,000,000 per occurrence; Applicant may satisfy all or part of the insurance requirement through maintenance of a staff-approved self-insurance program as specified in the lease.

EXHIBIT A

A3755

LAND DESCRIPTION

Four (4) parcels of tide and submerged land in the Pacific Ocean, situate in San Diego County, State of California more particularly described as follows:

Parcel A-1 (Borrow Site SO-5)

BEGINNING at a point having coordinates CCS83 (Zone 6) N(y)=1937618.6 feet, E(x)=6243201.4 feet, thence in a clockwise direction through the following six (6) points with CCS83 (Zone 6) coordinates:

1. N(y)=1937835.7 feet, E(x)=6245380.1 feet;
2. N(y)=1936672.7 feet, E(x)=6246048.5 feet;
3. N(y)=1932184.5 feet, E(x)=6247264.0 feet;
4. N(y)=1931906.8 feet, E(x)=6245197.8 feet;
5. N(y)=1936212.6 feet, E(x)=6244190.9 feet;
6. N(y)=1936846.1 feet, E(x)=6243279.6 feet;

thence continuing to the **POINT OF BEGINNING**.

Parcel A-2 (Borrow Site SO-6)

BEGINNING at a point having coordinates CCS83 (Zone 6) N(y)=1947283.6 feet, E(x)=6241714.7 feet (Latitude=N 33°00'20.34", Longitude= W 117°17'37.13") thence in a clockwise direction through the following three (3) points with CCS83 (Zone 6) coordinates:

1. N(y)=1947689.1 feet, E(x)=6243778.4 feet;
2. N(y)=1947345.0 feet, E(x)=6243858.0 feet;
3. N(y)=1945892.0 feet, E(x)=6242048.1 feet;

thence continuing to the **POINT OF BEGINNING**.

Parcel A-3 (Encinitas Receiver Site)

A 500 foot wide parcel in the Pacific Ocean, being bounded on the Northwest by the southwesterly extension of the tangent centerline of Daphne Street, where it intersects North Coast Highway 101, being bounded on the Northeast by the Ordinary High Water Mark of said ocean, bounded on the Southeast by the

southwesterly extension of the center line of West H Street and bounded on the Southwest by a line lying 500 feet southwesterly of and parallel with said Ordinary High Water Mark.

Parcel A-4 (Solana Beach Receiver Site)

A 500 foot wide parcel in the Pacific Ocean, being bounded on the Northwest by the southwesterly extension of the centerline of Ocean Street, being bounded on the Northeast by the Ordinary High Water Mark of said ocean, bounded on the Southeast by a line perpendicular to said ordinary high water mark, where it intersects the southwesterly extension of the centerline of Border Avenue and bounded on the Southwest by a line lying 500 feet southwesterly of and parallel with said Ordinary High Water Mark.

END OF DESCRIPTION

The above description of Parcel A-2 is copied from the original description prepared by Steven Lehman on 5/24/11 as found in Lease 8228, Exhibit B, Calendar Item C43.

Descriptions for Parcel A-1, A-3 and A-4 were prepared by undersigned at date indicated.

Prepared 02/23/23 by the California State Lands Commission Boundary Unit



EXHIBIT C
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM
COASTAL STORM DAMAGE REDUCTION PROJECT
(A3755, State Clearinghouse No. 2012041051)

The California State Lands Commission (Commission or CSLC) is a responsible agency under the California Environmental Quality Act (CEQA) for the Coastal Storm Damage Reduction Project (Project). The CEQA lead agency for the Project is the City of Solana Beach.

In conjunction with approval of this Project, the Commission adopts this Mitigation Monitoring Program (MMP) for the implementation of mitigation measures for the portion(s) of the Project located on State lands. The purpose of a MMP is to impose feasible measures to avoid or substantially reduce the significant environmental impacts from a project identified in an Environmental Impact Report (EIR) or a Mitigated Negative Declaration (MND). State CEQA Guidelines¹ section 15097, subdivision (a), states in part:

“In order to ensure that the mitigation measures and project revisions identified in the EIR, or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.”

The lead agency certified an EIR, State Clearinghouse No. 2012041051, adopted a Mitigation Monitoring and Reporting Program (MMRP) for the whole of the Project (see Exhibit C, Attachment C-1), and remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with its program. The Commission’s action and authority as a responsible agency apply only to the mitigation measures listed in Table C-1 below. Table C-2 includes additional monitoring commitments as part of the MMRP. The full text of each mitigation measure and monitoring commitment, as set forth in the MMRP prepared by the CEQA lead agency and provided in Attachment C-1, is incorporated by reference in this Exhibit C. Any mitigation measures adopted by

¹ The State CEQA Guidelines are found at California Code of Regulations, title 14, section 15000 et seq.

the Commission that differ substantially from those adopted by the lead agency are shown as follows:

- Additions to the text of the mitigation measure are underlined; and
- Deletions of the text of the mitigation measure are shown as ~~strikeout~~ or as otherwise noted.

Table C-1. Project Impacts and Applicable Mitigation Measures

Potential Impact	Mitigation Measure (MM) ²	Difference Between CSLC MMP and Lead Agency MMRP
BR-1. Biological Resources Impacts	MM BR-1	None
BR-2. Impacts to Reef Habitat and Submerged Aquatic Habitat	MM BR-1	None
CR-1 Impacts to Cultural Resources	MM CR-1	See below for CR-1

Addition to MM CR-1: Title to all archaeological sites and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the Commission. Commission staff shall be notified of any cultural resources or paleontological specimens discovered on lands under the jurisdiction of the Commission. The final disposition of archaeological and historical resources or paleontological specimens from such lands must be approved by the Commission. In addition, if requested by a Tribe, a Native American Monitor shall remain onsite during Project construction.

Table C-2. Project Monitoring Commitments and Noise Minimization Measures

Monitoring Commitments	
Biological Resources	Habitat Monitoring Plan Biological Mitigation and Monitoring Plan California Grunion Monitoring and Avoidance Plan Snowy Plover Monitoring and Avoidance Plan Borrow Site Monitoring Plan

² See Attachment C-1 for the full text of each MM taken from the MMRP prepared by the CEQA lead agency.

Monitoring Commitments	
Cultural Resources	Cultural Resources Monitoring Plan
Geology and Topography	Physical Monitoring Plan
Recreational	Surfing Monitoring Plan
Water Quality	Water Quality Monitoring Plan
Noise Minimization Measures	
Noise Impacts	MMs N-1, N-2, N-3, N-4, and N-5 Noise Monitoring Plan

ATTACHMENT C-1

**MITIGATION MONITORING AND REPORTING PROGRAM ADOPTED BY THE
THE CITY OF SOLANA BEACH**

CITY OF SOLANA BEACH AND ENCINITAS

COASTAL STORM DAMAGE REDUCTION PROJECT FINAL EIS/EIR MITIGATION MONITORING AND REPORTING PROGRAM

SEPTEMBER 2015

PROJECT NAME: Coastal Storm Damage Reduction Project

DESCRIPTION: The U.S. Army Corps of Engineers (USACE) and the City of Solana Beach and the City of Encinitas have prepared a joint Final Integrated Feasibility Study and Final Environmental Impact Statement/Environmental Impact Report (FEIS/FEIR) for the Coastal Storm Damage Reduction Project. The FEIS/FEIR evaluates potential options for reducing storm damage related coastal erosion over a 50-year period. The Proposed Project in Solana Beach includes construction of a 150-foot-wide beach fill along a 7,200-foot-long stretch of shoreline using 700,000 cubic yards of compatible sediment, with renourishment in the amount of 290,000 cubic yards every 10 years on average over a 50-year period of Federal participation, for a total of four additional nourishments. The Proposed Project in Encinitas includes construction of a 50-foot-wide beach fill along a 7,800-foot-long stretch of shoreline using 340,000 cubic yards of compatible sediment, with renourishment in the amount of 220,000 cubic yards every 5 years on average over a 50-year period of Federal participation, for a total of nine additional nourishments. Material for the beach fills will be dredged from borrow sites located off the coast of San Diego County. Physical monitoring of the performance of the project will be required annually throughout the 50-year period of Federal participation. The Proposed Project would provide coastal storm damage reduction throughout the project areas and would maintain and enhance the existing recreational beach.

LOCATION: The Proposed Project consists of two segments: Segment 1 is in Encinitas and consists of a 7,800 foot long section of the public beach and Segment 2 is in Solana Beach and includes a 7,200 foot section of the public beach.

The following Mitigation Measures and Monitoring Commitments have been incorporated into the Project and are to be implemented before, during, or after construction of the initial fill and renourishment events as required and as noted below in accordance with the FEIS/FEIR. Additional project design features are included in the FEIS/FEIR, Volume I, Table 10.2-2 on pages 546 through 547. Further information is contained in FEIS/FEIR Appendices H and M.

MITIGATION MEASURES AND MONITORING COMMITMENTS	AGENCY RESPONSIBLE	TIMING OF COMPLIANCE	DATE OF COMPLIANCE
MONITORING COMMITMENTS			
Geology and Topography Monitoring Plan			
<p>Physical Monitoring Plan: Determine if there are changes in the beach and determine the need for the next renourishment event. Monitor lagoon entrances.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>One year prior to initial construction, spring and fall. Semi-annually spring and fall for the life of the project. Applies to initial fill and renourishment events.</p>	
Water Quality Monitoring Plan			
<p>Water Quality Monitoring Plan: Monitor at borrow and receiver sites for salinity, pH, water temperature, dissolved oxygen, and light transmissivity (turbidity) to avoid turbidity impacts to fish and aquatic species during dredging and beach fill activities.</p>	<p>USACE</p>	<p>One week prior to construction, weekly during dredging and beach fill operations, and one week after completion. Applies to initial fill and renourishment events.</p>	
1 Biological Resources Monitoring Plans			
<p>Habitat Monitoring Plan: Map extent of reef habitat and submerged aquatic habitat. Used to determine nature and size of project impacts.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>One year prior to initial fill construction in the spring and fall. Annually for two years post-construction in the spring and fall.</p>	
<p>Biological Mitigation and Monitoring Plan: Construct estimated 13.6 acres of rocky reef habitat offshore in Solana Beach and monitor for success of any biological mitigation constructed.</p>	<p>USACE and City of Solana Beach</p>	<p>Five years post-mitigation construction at 1, 3, 6, & 12 months for year 1; spring and fall for years 2-5 following mitigation.</p>	

MITIGATION MEASURES AND MONITORING COMMITMENTS	AGENCY RESPONSIBLE	TIMING OF COMPLIANCE	DATE OF COMPLIANCE
<p>California Grunion Monitoring and Avoidance Plan: Identify suitable grunion spawning habitat and monitor use during beach fill operations.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>Prior to the start of beach fill operations and during predicted runs occurring on suitable beaches during beach fill operations for the initial fill and renourishment events.</p>	
<p>Snowy Plover Monitoring and Avoidance Plan: Screen for presence and monitor effectiveness of avoidance measures (if present).</p>	<p>USACE and City of Solana Beach</p>	<p>Monitor Seaside Parking Lot at Cardiff State Beach, (if proposed for use as staging area) prior to mobilization. Survey and implement avoidance measures whenever Seaside Parking lot is being used as an equipment staging area for initial fill and all renourishment events.</p>	
<p>Borrow Site Monitoring Plan: Monitor seafloor morphology, water quality, and benthic habitat quality at offshore borrow sites.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>One year prior to construction, spring and fall. Annually for two years post-construction, spring and fall.</p>	
<p>2 Cultural Resources Monitoring Plan</p>			
<p>Cultural Resources Monitoring Plan: Monitor dredge and fill operations for the presence of unknown cultural resources. Provisions to halt construction should unknown cultural resources be located until they can be evaluated and coordination with SHPO concluded.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>Periodic monitoring during dredge and fill operations.</p>	
<p>Noise Monitoring Plan</p>			

MITIGATION MEASURES AND MONITORING COMMITMENTS	AGENCY RESPONSIBLE	TIMING OF COMPLIANCE	DATE OF COMPLIANCE
Noise Monitoring Plan: Verify noise levels remain below significance thresholds.	USACE, City of Solana Beach and City of Encinitas	Performed during all beach construction activities.	
Recreational Monitoring Plan			
Surfing Monitoring Plan: Monitor surfing conditions to determine if project-related impacts occur.	USACE, City of Solana Beach and City of Encinitas	One year prior to construction. Annually for two years post-construction for initial fill and for renourishment events.	
MITIGATION MEASURES			
1 Biological Resources Mitigation Measure			

MITIGATION MEASURES AND MONITORING COMMITMENTS	AGENCY RESPONSIBLE	TIMING OF COMPLIANCE	DATE OF COMPLIANCE
<p>BR-1:¹ A monitoring program would be implemented to assess impacts two years following construction. Mitigation would be triggered if certain conditions occur during, and persist through, the two-year post-construction monitoring period. If the results of monitoring indicate a significant impact, mitigation would be implemented in the project area at sites to be determined in consultation with the resource and regulatory agencies. Potential mitigation areas offshore of Solana Beach were identified and include areas that consist primarily of sandy bottom habitat. Reef habitat mitigation shall consist of shallow-water, mid-water, or deep-water reef at a functional equivalent to the area of reef impacted based on the water depth of the mitigation reef. Shallow water reef would be for any surfgrass mitigation, mid-water reef would be located inshore of the existing kelp beds, and deep-water reef would be located offshore of the existing kelp beds. Mitigation in the form of a shallow water reef would be constructed at approximately -10 to -14 feet MLLW at a functional equivalent of 2.5:1. Mitigation in the form of a mid-depth reef would be constructed at approximately -30 feet MLLW at a functional equivalent of 2:1. Mitigation in the form of a deep water reef would be constructed at approximately -40 feet MLLW at a functional equivalent of 1.5:1.</p>	<p>USACE and City of Solana Beach</p>	<p>Two years post construction. If monitoring identifies project specific impacts mitigation reefs would be constructed. Five years post-mitigation construction at 1, 3, 6, & 12 months for year 1; spring and fall for years 2-5 following mitigation construction.</p>	

MITIGATION MEASURES AND MONITORING COMMITMENTS	AGENCY RESPONSIBLE	TIMING OF COMPLIANCE	DATE OF COMPLIANCE
2Cultural Resources Mitigation Measure			
<p>CR-1: Implement a monitoring program designed to identify cultural resources encountered during dredging and nourishment operations. Monitoring procedures would be specified in a monitoring plan that is approved before dredging is initiated. The monitoring would be conducted by a qualified archaeologist and would be instituted as material is dredged from each borrow site and placed at the receiver site. Monitoring would consist of periodic spot-checking of materials dredged from low- and moderate-sensitivity contexts and continuous monitoring of materials from high-sensitivity contexts. If monitoring reveals cultural materials indicating that dredging had entered into an archaeological deposit, construction in that area should cease until the requirements of 36 CFR 800.13(b) are met. Then the dredging operation would be permanently relocated away from that site and a 250-ft-wide buffer would be established around the site.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>Ongoing during the 50 year life of the project. Periodic monitoring during dredge and fill operations.</p>	
Noise Mitigation Measures			
<p>N-1: Noise monitoring shall be performed during all beach construction activities to verify that noise levels remain below significant levels. If noise levels exceed significant levels, the contractor shall be required to modify operations to reduce noise levels.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>During all beach fill activities for the initial fill and during all renourishment cycles for the 50 year life of the project.</p>	
<p>N-2: All construction equipment shall be properly maintained and tuned to minimize noise emissions.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>During all beach fill activities for the initial fill and during all renourishment cycles for the 50 year life of the project.</p>	

MITIGATION MEASURES AND MONITORING COMMITMENTS	AGENCY RESPONSIBLE	TIMING OF COMPLIANCE	DATE OF COMPLIANCE
<p>N-3: All equipment shall be fitted with properly operating mufflers, air intake silencers, and engine shrouds.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>During all beach fill activities for the initial fill and during all renourishment cycles for the 50 year life of the project.</p>	
<p>N-4: Stationary noise sources (e.g., booster pumps, generators, and compressors) shall be located as far from residential receptor locations as is feasible, ideally 250 feet or greater.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>During all beach fill activities for the initial fill and during all renourishment cycles for the 50 year life of the project.</p>	
<p>N-5: Where feasible, use an electric motor to drive the booster pump, rather than a diesel engine.</p>	<p>USACE, City of Solana Beach and City of Encinitas</p>	<p>During all beach fill activities for the initial fill and during all renourishment cycles for the 50 year life of the project.</p>	

¹ Mitigation Measure BR-1 is summarized in the MMRP. The entire measure is set forth in full in Volume 1, Section 5.5.7 (Solana Beach Biological Resources Mitigation Measure) of the EIS/EIR and Volume III, Appendix H (Potential Impacts to Nearshore Resources and Mitigation and Monitoring Plan) and Volume V, Appendix M (Mitigation Strategy) and is incorporated herein by this reference.

EXHIBIT D – COASTAL STORM DAMAGE REDUCTION PROJECT
CALIFORNIA STATE LANDS COMMISSION
STATEMENT OF FINDINGS

1.0 INTRODUCTION

The California State Lands Commission (Commission or CSLC), acting as a responsible agency under the California Environmental Quality Act (CEQA), makes these findings to comply with CEQA as part of its discretionary approval to authorize issuance of a General Lease – Public Agency Use, to the cities of Encinitas and Solana Beach (Cities), for the proposed new use of sovereign land associated with the dredging of sand and deposition of materials for beach nourishment for beaches in the Cities in and adjacent to the Pacific Ocean, San Diego County, for the Coastal Storm Damage Reduction Project (Project). (See generally Pub. Resources Code, § 21069; State CEQA Guidelines¹, § 15381.) The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions. (Pub. Resources Code, §§ 6301, 6306, 6009, subd. (c).) All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust.

The Commission is a responsible agency under CEQA for the Project because the Commission must approve a lease for the Project to go forward and because the City of Solana Beach (City) is the lead agency under CEQA for the Project. The City, as the CEQA lead agency, has the principal responsibility for approving the Project and has completed its environmental review under CEQA. The City analyzed the environmental impacts associated with the Project in a Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (State Clearinghouse [SCH] No. 2012041051) and, on October 14, 2015, certified the EIS/EIR and adopted a Mitigation Monitoring and Reporting Program (MMRP). The federal lead agency under the National Environmental Policy Act is the U.S. Army Corps of Engineers (USACE).

The proposed Project area consists of two segments of the shorelines located along the Pacific Ocean in the cities of Encinitas and Solana Beach, in San Diego County. The Project area extends from the southern limits of the City of

¹ CEQA is codified in Public Resources Code section 21000 et seq. The State CEQA Guidelines are found in California Code of Regulations, title 14, section 15000 et seq.

Solana Beach to the northern limits of the City of Encinitas. Segment 1 is a portion of the beach within the city limits of Encinitas that extends approximately 7,800 feet from the 700 block of Neptune Avenue south to West H Street. Segment 2 is most of the beach within the city limits of Solana Beach, approximately 7,200 feet long extending from the southern city limits north to the south side of Tide Park Beach, close to the northern city limits of Solana Beach.

The proposed Project is described in greater detail in the FEIS/FEIR, Volume 1 (Coastal Storm Damage Reduction Integrated Feasibility Report and Final EIS/EIR), Chapter 3.0 (Alternatives).

Segment 1 (City of Encinitas): The proposed Project for coastal storm damage reduction in Encinitas is Alternative EN-1B which includes construction of a 50-foot-wide beach fill along a 7,800-foot-long stretch of shoreline using 340,000 cubic yards of compatible sediment, with renourishment in the amount of 220,000 cubic yards every 5 years on average over a 50-year period of USACE participation, for a total of nine additional nourishments.

Segment 2 (City of Solana Beach): The proposed Project for coastal storm damage reduction in Solana Beach is Alternative SB-1B which includes construction of a 150-foot-wide beach fill along a 7,200-foot-long stretch of shoreline using 700,000 cubic yards of compatible sediment, with renourishment in the amount of 290,000 cubic yards every 10 years on average over a 50-year period of USACE participation, for a total of four additional nourishments.

Material for the beach fills will be dredged from up to three borrow sites identified as SO-5, SO-6 and MB-1, which are located off the coast of San Diego County. SO-5 is located offshore from Encinitas, SO-6 is located offshore from Del Mar, and MB-1 is located offshore from San Diego. Physical monitoring of the performance of the proposed Project will be required annually by the USACE throughout the 50-year period of Federal participation. The proposed Project would provide coastal storm damage reduction throughout the Project reach and would maintain the existing recreational beach.

The City determined that the Project could have significant environmental effects on the following environmental resources:

- Biological Resources
- Cultural Resources

Of the two resources areas noted above, Project components within the Commission's jurisdiction (i.e., dredging and beach fills) could have significant environmental effects on both of the resource areas.

In certifying the EIS/EIR and approving the Project, the City imposed various mitigation measures for Project-related significant effects on the environment as conditions of Project approval and concluded that Project-related impacts would be substantially lessened with implementation of these mitigation measures such that the impacts would be less than significant.

As a responsible agency, the Commission complies with CEQA by considering the EIS/EIR and reaching its own conclusions on whether, how, and with what conditions to approve a project. In doing so, the Commission may require changes in a project to lessen or avoid the effects, either direct or indirect, of that part of the project which the Commission will be called on to carry out or approve. In order to ensure the identified mitigation measures and/or Project revisions are implemented, the Commission adopts the Mitigation Monitoring Program (MMP) as set forth in Exhibit C as part of its Project approval.

2.0 ADMINISTRATIVE RECORD OF PROCEEDINGS AND CUSTODIAN OF THE RECORD

These Findings are supported by substantial evidence contained in the EIS/EIR and other relevant information provided to the Commission or existing in its files, all of which is contained in the administrative record. The administrative record is located at the California State Lands Commission, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825. The custodian for the administrative record is the California State Lands Commission Division of Environmental Planning and Management.

3.0 FINDINGS

The Commission's role as a responsible agency affects the scope of, but not the obligation to adopt, findings required by CEQA. Findings are required under CEQA by each "public agency" that approves a project for which an EIR has been certified that identifies one or more significant impacts on the environment (Pub. Resources Code, § 21081, subd. (a); State CEQA Guidelines, § 15091, subd. (a).) Because the EIS/EIR certified by the City for the Project identifies potentially significant impacts that fall within the scope of the Commission's approval, the Commission makes the Findings set forth below as a responsible agency under CEQA. (State CEQA Guidelines, § 15096, subd. (h); *Riverwatch v. Olivenhain Mun. Water Dist.* (2009) 170 Cal.App.4th 1186, 1202, 1207.

While the Commission must consider the environmental impacts of the Project as set forth in the EIS/EIR, the Commission's obligation to mitigate or avoid the direct or indirect environmental impacts of the Project is limited to those parts which it decides to carry out, finance, or approve (Pub. Resources Code, § 21002.1, subd. (d); State CEQA Guidelines, §§ 15041, subd. (b), 15096, subds. (f)-

(g.) Accordingly, because the Commission's exercise of discretion involves only issuing a General Lease-Public Agency Use for this Project, the Commission is responsible for considering only the environmental impacts related to lands or resources subject to the Commission's jurisdiction. With respect to all other impacts associated with implementation of the Project, the Commission is bound by the legal presumption that the EIS/EIR fully complies with CEQA.

The Commission has reviewed and considered the information contained in the Project EIS/EIR. All significant adverse impacts of the Project identified in the EIS/EIR relating to the Commission's approval of a General Lease-Public Agency Use, which would allow sand for the beach fills to be dredged from borrow sites located off the coast of San Diego County to provide coastal storm damage reduction throughout the Project areas and would maintain and enhance the existing recreational beach, are included herein and organized according to the resource affected.

These Findings, which reflect the independent judgment of the Commission, are intended to comply with CEQA's mandate that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects unless the agency makes written findings for each of those significant effects. Possible findings on each significant effect are:

- (1) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the EIS/EIR.
- (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the Commission. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or Project alternatives identified in the EIS/EIR.²

A discussion of supporting facts follows each Finding.

- Whenever Finding (1) occurs, the mitigation measures that lessen the significant environmental impact are identified in the facts supporting the Finding.

² See Public Resources Code section 21081, subdivision (a) and State CEQA Guidelines section 15091, subdivision (a).

- Whenever Finding (2) occurs, the agencies with jurisdiction are specified. These agencies, within their respective spheres of influence, have the responsibility to adopt, implement, and enforce the mitigation discussed.

The mitigation measures are briefly described in these Findings; more detail on the mitigation measures is included in the EIS/EIR. While significant noise impacts are not expected, the EIS/EIR recommended measures to minimize the potential for noise impacts during construction. Because the EIS/EIR concluded that noise impacts, even before the minimization measures, are less than significant, noise impacts are not included in these Findings.

A. SUMMARY OF FINDINGS

Based on public scoping, the proposed Project will have No Impact on the following environmental issue areas:

- Agricultural and Forestry Resources

The EIS/EIR subsequently identified the following impacts as Less Than Significant:

- Aesthetics
- Air Quality
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Wildfire

For the remaining potentially significant effects, the Findings are organized by significant impacts within the EIS/EIR issue areas as presented below.

B. POTENTIALLY SIGNIFICANT IMPACTS

The impacts within CSLC jurisdiction identified in Table D-1 were determined in the EIS/EIR to be potentially significant absent mitigation. After application of mitigation, however, all impacts were determined to be less than significant with mitigation (LTSM). For the full text of each mitigation measure (MM), please refer to Exhibit C, Attachment C-1.

Table D-1 – Significant Impacts by Issue Area

Environmental Issue Area	Impact Number (Less Than Significant with Mitigation)
Biological Resources	BR-1, BR-2
Cultural Resources	CR-1

C. IMPACTS REDUCED TO LESS THAN SIGNIFICANT LEVELS WITH MITIGATION

The impacts identified below were determined in the EIS/EIR to be potentially significant absent mitigation; after application of mitigation, however, the impacts were determined to be less than significant.

1. BIOLOGICAL RESOURCES

<p>CEQA FINDING NO. 1</p> <p>Impact: Impact BR-1. The proposed Project may result in significant impacts to Biological Resources due to the placement of sand and construction activities during the 50-year Project length.</p> <p>Finding(s): (1) Changes or alterations have been required in, or incorporated into, the Project that mitigate or avoid the significant environmental effect as identified in the EIR.</p>

FACTS SUPPORTING THE FINDING(S)

Construction activities and the placement of sand may result in significant impacts to Biological Resources (Sensitive Habitat). Those impacts would be mitigated to a level less than significant through implementation of MM BR-1, which would require two years of post-construction monitoring to assess sand movement (distribution, rate of loss), shoreline trends (winnowing, wave action), and impacts to vegetated rocky reef habitat. While the analysis in the EIS/EIR relies on model-predicted impacts, actual impacts would be assessed by

implementation of a construction monitoring program outlined in Volume III, Appendix H (Potential Impacts to Nearshore Resources and Mitigation and Monitoring Plan). Mitigation would be triggered if certain conditions occur during, and persist through, the two-year post-construction monitoring period. If mitigation is implemented, mitigation monitoring would also be conducted. The specifics of monitoring and mitigation would be determined in consultation with the resource and regulatory agencies. Mitigation for impacts to rocky reef habitat could consist of the construction of a mitigation reef and is described in MM BR-1, which is set forth in full in Volume 1, Section 5.5.7 (Solana Beach Biological Resources Mitigation Measure) of the EIS/EIR and Volume III, Appendix H (Potential Impacts to Nearshore Resources and Mitigation and Monitoring Plan) and Volume V, Appendix M (Mitigation Strategy) and is incorporated herein by this reference. Implementation of MM BR-1 will reduce the potential impact to Biological Resources (Sensitive Habitat) to a level that is less than significant.

Implementation of **MM BR-1** has been incorporated into the Project to reduce this impact to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 2

Impact: **Impact BR-2. The proposed Project could harm reef habitat and submerged aquatic habitat during the placement of sand and construction activities during the 50-year Project length.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the Project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Construction activities and the placement of sand may result in direct and indirect significant impacts to Biological Resources (Essential Fish Habitat/Habitat Areas of Particular Concern). Those impacts would be mitigated to a level less than significant level through implementation of MM BR-1, which would require two years of post-construction monitoring to assess sand movement (distribution, rate of loss), shoreline trends (winnowing, wave action), and impacts to vegetated rocky reef habitat. Mitigation would be triggered if certain conditions occur during, and persist through, the two-year post-construction monitoring period. Mitigation for impacts to rocky reef habitat would consist of the construction of a mitigation reef as described in Volume 1, Section 5.5.7 (Solana Beach Biological Resources Mitigation Measure) of the EIS/EIR and Volume III,

Appendix H (Potential Impacts to Nearshore Resources and Mitigation and Monitoring Plan), and Volume V, Appendix M (Mitigation Strategy) and is incorporated herein by this reference. Implementation of this mitigation measure will reduce the potential impact to Biological Resources (Essential Fish Habitat and Habitat Areas of Particular Concern) to a level that is less than significant.

Implementation of **MM BR-1** has been incorporated into the Project to reduce this impact to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

2. CULTURAL AND HISTORICAL RESOURCES

CEQA FINDING NO. 3

Impact: **Impact CR-1. Project construction could cause potential disturbance of previously unknown prehistoric, archaeological, or tribal cultural resources, or human remains, during Project construction during the placement of sand and construction activities during the 50-year Project length.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the Project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The potential significant impact to Cultural Resources (Archaeological Resources) will be mitigated to a level less than significant through implementation of Mitigation Measure CR-1 which provides for a monitoring program designed to identify cultural resources encountered during dredging and nourishment operations. Monitoring procedures would be specified in a monitoring plan that is approved prior to the initiation of dredging. Monitoring would be conducted by a qualified archaeologist and would be instituted as material is dredged from each borrow site and placed at the receiver site. Monitoring would consist of periodic spot-checking of materials dredged from low- and moderate-sensitivity contexts and continuous monitoring of materials from high-sensitivity contexts. If monitoring reveals cultural materials indicating that dredging had entered into an archaeological deposit, construction in that area would cease until the requirements of 36 CFR 800.13(b) are met. Then the dredging operation would be permanently relocated away from that site and a 250-ft-wide buffer would be established around the site. Underwater investigations will be conducted prior to disturbance; if cultural resources are

found, they will be evaluated for National Register eligibility. This mitigation measure is set forth in full in Volume 1, Section 5.8.3 (Solana Beach) of the EIS/EIR and is incorporated herein by this reference. Implementation of this mitigation measure will reduce the potential impact to Cultural Resources (Archaeological Resources) to a level that is less than significant.

Implementation of **MM CR-1** has been incorporated into the Project to reduce this impact to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

D. FINDINGS ON ALTERNATIVES

As explained in *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1000:

When it comes time to decide on project approval, the public agency's decision-making body evaluates whether the alternatives [analyzed in the EIR] are actually feasible.... At this final stage of project approval, the agency considers whether '[s]pecific economic, legal, social, technological, or other considerations...make infeasible the mitigation measures or alternatives identified in the environmental impact report.' Broader considerations of policy thus come into play when the decision-making body is considering actual feasibility than when the EIR preparer is assessing potential feasibility of the alternatives [citations omitted].

The City of Solana Beach, as the CEQA lead agency, examined a reasonable range of alternatives to determine whether they could meet the Project's objectives while avoiding or substantially lessening one or more of the Project's unavoidable significant impacts.

All alternatives went through a preliminary screening process (Volume I, Chapter 3 (Alternatives)). Table 3.1-2 in the EIS/EIR lists the alternatives that were eliminated early in the process and those carried forward for additional analysis. Preliminary screening eliminated the following alternatives from further analysis: Managed Retreat; Emergent Breakwaters; Submerged Breakwater/Artificial Reef; Groins; and Revetments. These alternatives were screened out because they would not meet project needs and objectives and/or because the costs for implementation to meet the needs and objectives would be disproportionately high.

The secondary screening eliminated the following alternatives: Notchfill Only; and Seawalls. These alternatives were determined to have the potential to meet a basic project need or objective at proportionally lower implementation costs than those alternatives screened out in the preliminary screening; however, these alternatives did not meet all the project needs and objectives. Furthermore, the level of effectiveness of these alternatives relative to the implementation costs is not favorable when compared to the alternatives carried forward. The alternatives carried forward into detailed analysis and evaluation in the EIS/EIR met both the project needs and objectives. Numerous scenarios for potential additional beach widths at each Project segment and at high and low sea level rise scenarios were explored to determine the most prudent and practicable design widths, ranging from 50 to 400 feet of additional width at 50-foot increments. Alternatives for Encinitas and alternatives for Solana Beach were analyzed independent of each other in order to identify the optimal plan for implementation within the entire Project area. The alternatives for the Encinitas Project segment (Segment 1) could then be paired with any of the alternatives for the Solana Beach segment (Segment 2) to produce the plan with maximized effectiveness.

The final six alternatives analyzed in the EIS/EIR (Volume I, Chapter 9) represent a reasonable range of potentially feasible alternatives that could reduce one or more significant impacts of the Project. These alternatives include:

1. SB 1A - Beach Nourishment (200-ft/300-ft beach renourished every 13/14 years)
2. SB 1B - Beach Nourishment (150-ft beach renourished every 10 years)
3. SB 1C - Beach Nourishment (100-ft beach renourished every 10 years)
4. SB-2A Hybrid (150-ft beach renourished every 10 years and notchfill)
5. SB 2B Hybrid (100-ft beach renourished every 10 years and notchfill)
6. SB 3 No Action Alternative

Because all of the potentially significant impacts of the proposed Project (Alternative SB 1B) can be reduced or avoided to a level below significance by the implementation of feasible mitigation measures, no findings regarding Project alternatives are required.

As presented in the EIS/EIR, the alternatives were described and compared with each other and with the proposed Project.

The City independently reviewed and considered the information on alternatives provided in the EIS/EIR and in the record. The EIS/EIR reflects the City's independent judgment as to alternatives. The City found that the proposed Project provides the best balance between the Project goals and objectives and the Project's benefits.

Based upon the objectives identified in the EIR and the detailed mitigation measures imposed upon the Project, the Commission has determined that the Project should be approved, subject to such mitigation measures (Exhibit C, Mitigation Monitoring Program).