

# Final Environmental Impact Report for the PRC 421 Decommissioning Project

State Clearinghouse No. 2021060145 CSLC EIR Number: 807

Lead Agency: California State Lands Commission 100 Howe Avenue, Suite 100 South Sacramento, California 95825

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#### **MISSION STATEMENT**

The California State Lands Commission provides the people of California with effective stewardship of the lands, waterways, and resources entrusted to its care based on the principles of equity, sustainability, and resiliency, through preservation, restoration, enhancement, responsible economic development, and the promotion of public access.

**CEQA DOCUMENT WEBSITE** 

www.slc.ca.gov/ceqa/

#### **Geographic Location**

Latitude: 34°25'32" N Longitude: 119°54'31" W WGS84 Datum

Cover Photo: (Photo courtesy of Google Earth)

Document prepared in coordination with:



### 1 BACKGROUND AND PROJECT LOCATION

- 2 The objective of this Executive Summary is to provide a brief description of the
- 3 California State Lands Commission (CSLC) PRC 421 Decommissioning Project
- 4 (Project). The existing facilities at the former State Oil and Gas Lease PRC 421 include
- 5 two piers and caissons, Pier 421-1 and Pier 421-2, on State tide and submerged lands
- 6 as well as the upland access roadway and revetment, located on private lands, below
- 7 the bluffs marking the southern limit of the Sandpiper Golf Course in the city of Goleta,
- 8 California<sup>2</sup> (Figure ES-1 and Figure 1-2). The original oil and gas lease (Lease Number
- 9 89) was issued in 1929, terminated and renewed under PRC 421 in 1949, and
- 10 subsequently reassigned several times with the last assignment to Venoco, Inc.
- 11 (Venoco) in 1997.
- 12 In March 2016, Venoco filed for Chapter 11 Bankruptcy to reorganize. In April 2017,
- 13 Venoco again filed for bankruptcy and subsequently began liquidation of its assets
- 14 which included quitclaiming its oil and gas leases back to the State of California. Lease
- 15 PRC 421 and the associated two wells and pier structures were among the deserted
- 16 assets turned over to the State. The wells were shut-in (non-productive) at the time the
- 17 State took control of them.
- 18 In 2019, the two wells, 421-1 and 421-2, were successfully plugged to the surface under
- 19 the direction and supervision of the CSLC and the Division of Oil, Gas, and Geothermal
- 20 Resources (DOGGR), now known as the California Geologic and Energy Management
- 21 Division (CalGEM), in compliance with regulatory specifications. With the plugging and
- abandonment of the last two wells remaining in the oilfield, the piers have no further
- 23 use.
- 24 The proposed Project analyzed within this Environmental Impact Report (EIR) consists
- 25 of two primary components, one primarily occurring on State-owned sovereign lands
- 26 within the CSLC's jurisdiction and one occurring on private uplands. Component 1,
- 27 located on tide and submerged lands within the jurisdiction of the Commission, includes
- the complete removal of both well casings and welding a cap on the two plugged and
- abandoned wells at bedrock or below, removal of the caissons and piers back to the
- 30 existing seawall, and flushing and isolating the 2-inch-diameter and 6-inch-diameter
- 31 pipelines (pipelines) from the piers to their terminus close to the Ellwood Onshore
- 32 Facility (EOF). Component 2 of the Project, located on private uplands, would include
- removal of the two pipelines that extend from Pier 421-1, beneath the existing access
- roadway, and through the golf course to the 12<sup>th</sup> tee location at the golf course.

<sup>&</sup>lt;sup>2</sup> Based upon mean high tide line (MHTL) survey last performed 8/14/18 by CSLC boundary staff.



Figure ES-1. Project Overview Map

- 1 Additionally, Component 2 would involve the removal of the existing pier abutments
- 2 within the access roadway, as well as the supporting infrastructure (wooden seawall,
- 3 rock revetment) that supports the road. Any contaminated soil encountered within the
- 4 access roadway would be removed, and the roadway area would be restored as
- 5 appropriate to a more natural grade.
- 6 A summary of the primary Project elements include:
- 7 <u>Component 1 Caisson and Pier Removal (421-1 and 421-2)</u>
- Removal of soil and fill inside both caissons down to the existing bedrock,
   including all interior debris (buried timber, steel, and concrete support structures)
- Cutting and removal of well casings down to existing bedrock elevation and
   installation of a final welded well cap
- Removal of both caissons' external sheet pile and concrete walls including
   concrete footings
- Full removal of both pier structures and supports to the bedrock interface
- Flushing and isolating the 2-inch-diameter and 6-inch-diameter pipelines from the
   421-1 pier back through the golf course pipeline corridor to the EOF
- 17 <u>Component 2 Access Roadway, Production Pipelines, Pier Abutments, Rock</u>
   18 <u>Revetment and Wooden Seawall Removal</u>
- Excavation and removal of the 2-inch-diameter and 6-inch-diameter pipelines
   from the 421-1 pier location west to the 12<sup>th</sup> tee location at the golf course
- Complete removal of both pier abutment structures originally installed in 2001
- Removal of rock revetment from the beach (between the 12<sup>th</sup> tee and 421-2 pier area)
- Removal of wooden seawall and its structural components (from the 421-2 pier area and extending approximately 75 feet to the southeast)
- Removal of any unrecorded historical debris
- Removal of any petroleum hydrocarbon-containing soil identified within access
   roadway
- Sloping and restoration of access roadway area (1,600 feet) to a natural grade
- Final Site restoration

### 1 **PROJECT PURPOSE AND NEED**

- 2 The PRC 421 piers and facilities were installed in 1929 and 1930 for the purpose of oil
- 3 and gas development of the Ellwood Oil Field. With the plugging of the last two wells
- 4 remaining in the oilfield, the piers and caissons have no further use. These deteriorating
- 5 piers and caissons now represent a physical coastal obstruction, a potential public
- 6 safety hazard, and a potential environmental hazard represented by the known
- 7 presence of hydrocarbon-impacted soil and fill contained within the pier caissons. The
- 8 removal of the piers and caissons would be a significant public benefit, would allow full
- 9 use of the beach coastline by the public, and would eliminate an existing threat to public
- 10 safety and the environment. The existing access roadway and supporting revetment
- 11 would be used for decommissioning activities of the piers, caissons, and pipelines and
- 12 would also be subsequently decommissioned.

### 13 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

#### 14 This EIR identifies potential significant impacts of the Project on the following 15 environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Cultural Resources Tribal
- Geology, Soils, and Paleontological Resources
- Greenhouse Gas Emissions

- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services
- Recreation
- Transportation and Traffic
- 16 Impacts within each affected environmental issue area are analyzed in relation to 17 pertinent significance criteria. Impacts are classified as one of five categories:
- Significant and Unavoidable: A substantial or potentially substantial adverse change from the environmental baseline that meets or exceeds significance criteria, where either no feasible mitigation can be implemented, or the impact remains significant after implementation of mitigation measures.
- Less than Significant with Mitigation: A substantial or potentially substantial
   adverse change from the environmental baseline that can be avoided or reduced
   to below applicable significance thresholds.
- Less than Significant: An adverse impact that does not meet or exceed the
   significance criteria of a particular resource area and, therefore, does not require
   mitigation.
- Beneficial: An impact that would result in an improvement to the physical
   environment relative to baseline conditions.

No Impact: A change associated with the Project that would not result in an impact to the physical environment relative to baseline conditions.

Potential significant environmental impacts anticipated during Project implementation
are discussed in Section 4.0, *Environmental Impact Analysis*. With the implementation
of best management practices (BMPs) and mitigation measures (MMs) identified in this
EIR (see Table ES-1 at the end of this Executive Summary and Section 7.0, *Mitigation Monitoring Program*), the Project would avoid significant impacts. The CSLC staff or
CSLC-contracted monitors would monitor all MMs during implementation of the
Mitigation Monitoring Program.

## 10 SUMMARY OF ALTERNATIVES TO THE PROPOSED PROJECT

11 CEQA requires identification and evaluation in an EIR of a reasonable range of 12 alternatives to a proposed project plus a "no project" alternative to allow decision 13 makers to compare the impacts of approving the project with the impacts of not 14 approving the project. Pursuant to State CEQA Guidelines<sup>3</sup> section 15126.6, subdivision 15 (a), an EIR need only consider a range of feasible alternatives that would foster 16 informed decision making and public participation; therefore, while an EIR need not 17 consider every conceivable alternative, an EIR must include sufficient information about 18 each alternative to allow meaningful evaluation, analysis, and comparison with the 19 proposed Project. The range of potential alternatives that must be and are considered in 20 this EIR are limited to those that would feasibly attain most of the Project objectives 21 while avoiding or substantially reducing any of the significant effects of the Project. 22 Alternatives that were considered but rejected are identified and accompanied by brief, 23 fact-based explanations of the reasons for rejection. Among the factors that may have 24 been used to eliminate alternatives from detailed consideration, as permitted by CEQA. 25 are: (1) a failure to meet most of the proposed Project objectives; (2) infeasibility; or (3) 26 inability to avoid significant impacts (State CEQA Guidelines, § 15126.6, subd. (c)). 27 Alternatives carried forward for analysis in this EIR are summarized below and in Table 28 ES-2.

29 No Project Alternative. This Alternative consists of no action, such that all PRC • 30 421 facilities would be left in their current location and condition. Natural 31 processes would continue to degrade these existing facilities including corrosion 32 of the pipelines, piers and caisson sheet pile, deterioration of the concrete 33 caissons due to wave action and internal corrosion, and deterioration of the 34 wooden seawall due to wave action and wood decomposition. The No Project 35 Alternative does not meet the purpose of the Project or any of the Project objectives. 36

<sup>&</sup>lt;sup>3</sup> The State CEQA Guidelines are found at California Code of Regulations, title 14, section 15000 et seq.

1 Single Component Abandonment Alternative. This Alternative consists of not 2 implementing Component 2 as described in Section 2.3.3. Therefore, the buried 3 pipelines within the access roadway (following flushing and isolation), access 4 roadway, pier abutments, rock revetment and wooden seawall would be left in 5 place following the full implementation of Component 1. This Alternative meets 6 the Project objectives as former oil and gas production facilities would be 7 decommissioned and the beach area would be restored and appropriate for safe 8 public access and use.

### 9 ALTERNATIVES NOT CONSIDERED FOR FULL EVALUATION

A number of alternatives were evaluated in the engineering design and were considered
either infeasible or had no environmental benefits over the proposed Project and were
eliminated from further consideration. The alternatives considered, but rejected, are
listed below (see Section 5.3, *Alternatives Eliminated from Further Consideration*, for
further details):

- Installation and use of a sheet pile cofferdam to potentially increase the work
   time from rising tides
- Installation and use of a portable dam to potentially increase the work time from
   rising tides
- Installation of an alternative temporary ramp for construction beach access in
   between the two piers

### 21 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

- 22 Two alternatives were analyzed in detail in this EIR: the No Project Alternative and the
- 23 Single Component Abandonment Alternative. Table ES-2 compares the environmental
- 24 impacts associated with implementation of the proposed Project with the other
- 25 alternatives. As discussed in Section 5.4.1, the No Project Alternative would not result in
- any new direct impacts to the environment. However, ongoing deterioration of the
- 27 caissons by natural processes would ultimately lead to discharge of hydrocarbons to the
- 28 ocean (from hydrocarbon contaminated fill material and possibly free oil in the
- caissons). The resulting discharge and related impacts to water quality and marine
- 30 organisms would be greater than the proposed Project which includes procedures to
- 31 remove hydrocarbons from the caissons to the extent feasible prior to caisson
- 32 demolition to minimize any discharge. Because of these ongoing environmental impacts
- 33 if the decommissioning Project is not implemented, the No Project Alternative is not
- 34 considered the environmentally superior alternative.
- 35 The State CEQA Guidelines section 15126.6, subdivision (e)(2) states, in part, that an
- 36 EIR shall identify an environmentally superior alternative among the other alternatives if
- 37 the "environmentally superior alternative is the 'no project' alternative." Because the No

1 Project Alternative is not considered the environmentally superior alternative, the State

- 2 CEQA Guidelines do not require identification of an environmentally superior alternative
- 3 among the remaining alternatives.

## 4 KNOWN AREAS OF CONTROVERSY OR UNRESOLVED ISSUES

5 Pursuant to State CEQA Guidelines section 15123, the EIR shall identify "areas of 6 controversy known to the lead agency including issues raised by agencies and the public." An area of controversy known to the CSLC, as the lead agency, is the scope of 7 8 the Project that the CSLC can itself undertake, as the administrator of State sovereign 9 lands. This EIR analyzes the entirety of the Project, which includes Component 1, 10 Component 2, and site restoration. As explained in Section 1.2 of this EIR, the area waterward of the mean high tide line (MHTL) was within the boundary of former State 11 12 Oil and Gas Lease PRC 421, which was at one point leased to the Mobil Exploration 13 and Producing, Inc. (now ExxonMobil). After Venoco, the last lessee of PRC 421, 14 dissolved in bankruptcy, the CSLC and ExxonMobil entered into an agreement for 15 ExxonMobil to undertake the plugging and abandonment of the two PRC 421 wells 16 (completed in 2019) and decommissioning and removal of the PRC 421 caissons and 17 piers (the elements of Component 1). The CSLC understands that the 2-inch-diameter 18 and 6-inch-diameter pipelines and access roadway between Pier 421-1 and 12<sup>th</sup> hole of 19 the Sandpiper Golf course currently reside on private uplands (Table 1-3) and outside 20 the bounds of CSLC's territorial and statutory jurisdiction. As of fiscal year 2021/2022, 21 the CSLC does not have authorized funding from the California Legislature to undertake 22 the removal of the pipelines or roadway (elements of Component 2). However,

- 23 Component 2 is analyzed as part of the Project because it remains feasible and
- foreseeable that funding could be allocated to undertake Component 2, at some time,
- whether by the California Legislature, an agency of the State of California, or a local
- 26 agency.

## 27 ORGANIZATION OF THE EIR

- 28 The EIR is presented in nine sections:
- Section 1.0 Introduction provides background on the Project, previous related environmental review, and the CEQA process.
- Section 2.0 Project Description describes the Project, its location, construction activities, monitoring, and schedule.
- Section 3.0 Cumulative Projects identifies the projects that are analyzed for
   potential cumulative effects and the EIR's approach to cumulative impact
   analysis.

1 Section 4.0 – Environmental Impact Analysis describes existing 2 environmental conditions, impacts of the Project, mitigation measures, and 3 evaluates cumulative impacts. 4 Section 5.0 – Project Alternatives Analysis describes the alternatives 5 screening methodology, alternatives screened from full evaluation, and alternatives carried forward for analysis, and analyzes impacts of each 6 7 alternative carried forward. 8 • Section 6.0 – Other Required CEQA Sections and Environmentally Superior 9 Alternative addresses other required CEQA elements, including significant and 10 irreversible environmental and growth-inducing impacts, comparison of the Project and alternatives, and discussion of the environmentally superior 11 12 alternative. 13 Section 7.0 – Mitigation Monitoring Program describes the monitoring 14 authority, enforcement and mitigation compliance responsibilities, and general 15 monitoring procedures, and presents the mitigation monitoring table. 16 Section 8.0 – Other Commission Considerations presents information 17 relevant to CSLC's consideration of the Project that are in addition to the 18 environmental review required pursuant to CEQA. These include: (1) climate 19 change and sea level rise considerations; (2) commercial fishing 20 (socioeconomics); (3) environmental justice; and (4) state tide and submerged 21 lands identified as possessing significant environmental values within CSLC's 22 Significant Lands Inventory. Other considerations may also be addressed in the 23 staff report presented at the time of CSLC's consideration of the lease 24 application. 25 Section 9.0 – Report Preparation Sources and References lists the persons 26 involved in preparation of the EIR and the reference materials used. 27 The EIR also contains the following Appendices: 28 • Appendix A – Public Scoping Documents 29 **Appendix B** – Federal and State Regulations 30 Appendix C – Project Distribution List 31 • Appendix D – Air Quality and GHG Calculations • Appendix E – Bat Study Memo 32 33 • Appendix F – Wetland Delineation Report 34 • Appendix G – Bluff Retreat Study 35 • Appendix H – Archaeological Report 36 Appendix I – NV5 Coastal Processes Study

- 1 Appendix J Access Roadway and Wooden Seawall Site Assessment Report
- Appendix K Asbestos and Lead-Based Paint Survey Report

Impact	Impact Class <sup>1</sup>	Recommended MMs
AESTHETICS		
<b>AES-1:</b> Effects on Public Views from Decommissioning Activities (Component 1)	LTSM	<ul> <li>MM AES-1a: Overnight Storage of Equipment</li> <li>MM AES-1b: Material Removal at Construction</li> <li>Completion</li> <li>MM AES-1c: Minimize Night Lighting</li> </ul>
<b>AES-2:</b> Visual Improvements due to Removal of Component 1 Infrastructure (421-1 and 421-2 Pier and Wells/Caissons)	В	None Required
<b>AES-3:</b> Effects on Public Views from Decommissioning Activities (Component 2)	LTSM	<ul> <li>MM AES-1a: Overnight Storage of Equipment</li> <li>MM AES-1b: Material Removal at Construction</li> <li>Completion</li> <li>MM BIO-5a: Coastal Wetlands Mitigation</li> <li>MM BIO-5b: Retain Coastal Wetlands adjacent</li> <li>to Pier 421-2</li> </ul>
<b>AES-4:</b> Potential for Cumulative Aesthetic Impacts to Public Views (Components 1 and 2)	LTSM	<ul> <li>MM AES-1a: Overnight Storage of Equipment</li> <li>MM AES-1b: Material Removal at Construction</li> <li>Completion</li> <li>MM AES-1c: Minimize Night Lighting</li> </ul>
AQ-1: Decommissioning-related Air Pollutant Emissions (Component 1)	LIS	MM AQ-1a: Fugitive Dust Control Measures MM AQ-1b: Equipment Exhaust Emissions Reduction Measures
<b>AQ-2:</b> Decommissioning-related Air Pollutant Emissions (Component 2)	LTS	<b>MM AQ-1a:</b> Fugitive Dust Control Measures <b>MM AQ-1b:</b> Equipment Exhaust Emissions Reduction Measures

## Table ES-1. Impact and Mitigation Summary (Proposed Project)

Impact	Impact Class <sup>1</sup>	Recommended MMs	
<b>AQ-3:</b> Cumulative Air Quality Impacts (Components 1 and 2)	LTS	<b>MM AQ-1a:</b> Fugitive Dust Control Measures <b>MM AQ-1b:</b> Equipment Exhaust Emissions Reduction Measures	
BIOLOGICAL RESOURCES			
<b>BIO-1:</b> Disturbance of Nesting Birds	LTSM	<b>MM BIO-1:</b> Avoidance of Active Cliff Swallow Nests	
BIO-2: Loss of a Bat Roost	LTSM	MM BIO-2: Transitional Bat Habitat	
<b>BIO-3:</b> Temporary Effects of Potential Hydrocarbon Discharge	LTSM	<b>MM HAZ-1c:</b> Oil Spill Contingency Plan Implementation	
BIO-4: Loss of Coastal Wetlands (Component 1)	LTS	None Required	
<b>BIO-5:</b> Disturbance of Terrestrial and Aquatic Special-Status Wildlife Species	LTSM	<b>MM BIO-3a:</b> Avoidance of Estuarine Waters/Tidewater Goby Relocation	
		<b>MM BIO-3b:</b> CRLF Fencing at the EOF	
		<b>MM BIO-3c:</b> Environmental Awareness Training	
		<b>MM BIO3d:</b> Biological Pre-activity Surveys and Monitoring	
		MM BIO-3e: Delineation of Work Limits	
BIO-6: Disturbance of Intertidal ESHA	LTS	None Required	
<b>BIO-7:</b> Disturbance of Marine Special-Status Species	LTSM	MM BIO-4: Grunion Spawning Avoidance	
BIO-8: Loss of Coastal Wetlands (Component 2)	LTSM	MM BIO-5a: Coastal Wetlands Mitigation	
		<b>MM BIO-5b:</b> Retain Coastal Wetlands Adjacent to Pier 421-2	

Impact	Impact Class <sup>1</sup>	Recommended MMs
BIO-9: Loss of Terrestrial ESHA/Sensitive Natural	LTSM MM BIO-6a: Coastal Bluff Scrub Replacem	
Communities		MM BIO-6b: Southern Foredunes Avoidance
BIO-10: Loss of Special-Status Plant Species	LTS	None Required
<b>BIO-11:</b> Cumulative Impacts to Biological Resources (Components 1 and 2)	LTSM	<b>MM BIO-1:</b> Avoidance of Active Cliff Swallow Nests
		MM BIO-2: Transitional Bat Habitat
		<b>MM HAZ-1c:</b> Oil Spill Contingency Plan Implementation
		<b>MM BIO-3a:</b> Avoidance of Estuarine Waters/Tidewater Goby Relocation
		MM BIO-3b: CRLF Fencing at the EOF
		<b>MM BIO-3c:</b> Environmental Awareness Training
		<b>MM BIO-3d:</b> Biological Pre-activity Surveys and Monitoring
		MM BIO-3e: Delineation of Work Limits
		MM BIO-4: Grunion Spawning Avoidance
		MM BIO-5a: Coastal Wetlands Mitigation
		<b>MM BIO-5b:</b> Retain Coastal Wetlands adjacent to Pier 421-2
		MM BIO-6a: Coastal Bluff Scrub Replacement
		MM BIO-6b: Southern Foredunes Avoidance
Cultural Resources		
<b>CR-1:</b> Potential Impacts to Previously Undiscovered Cultural Resources During Implementation of Decommissioning (Component 1)	LTS	None Required

Impact	Impact Class <sup>1</sup>	Recommended MMs
<b>CR-2:</b> Potential Impacts to Previously Undiscovered Cultural Resources During Implementation of	LTSM	MM CUL-1/TCR-1: Cultural Resources Monitoring
Decommissioning (Component 2)		<b>MM CUL-2/TCR-2:</b> Cultural Resources Sensitivity Training
		<b>MM CUL-3/TCR-3:</b> Discovery of Previously Unknown Cultural or Tribal Resources
		<b>MM CUL-4/TCR-4:</b> Unanticipated Discovery of Human Remains
<b>CR-3:</b> Potential for Unauthorized Collection of CA-SBA-71 During Implementation of Decommissioning	LTSM	MM CUL-2/TCR-2: Cultural Resources Sensitivity Training
(Components 1 and 2)		<b>MM CUL-5/TCR-5:</b> Cultural Resources Protective Fencing (CA-SBA-71)
<b>CR-4:</b> Cumulative Impacts to Cultural Resources (Components 1 and 2)	LTSM	<b>MM CUL-1/TCR-1:</b> Cultural Resources Monitoring
		<b>MM CUL-2/TCR-2:</b> Cultural Resources Sensitivity Training
		<b>MM CUL-3/TCR-3:</b> Discovery of Previously Unknown Cultural or Tribal Resources
		<b>MM CUL-4/TCR-4:</b> Unanticipated Discovery of Human Remains
		<b>MM CUL-5/TCR-5:</b> Cultural Resources Protective Fencing (CA-SBA-71)
Cultural Resources - Tribal		
<b>TCR-1:</b> Potential Impacts to Previously Undiscovered Tribal Cultural Resources During Implementation of Decommissioning (Component 1)	LTS	None Required

Impact	Impact Class <sup>1</sup>	Recommended MMs
<b>TCR-2:</b> Potential Impacts to Previously Undiscovered Tribal Cultural Resources During Implementation of Decommissioning (Component 2)	LTSM	<ul> <li>MM CUL-1/TCR-1: Tribal Cultural Resources Monitoring</li> <li>MM CUL-2/TCR-2: Cultural Resources Sensitivity Training</li> <li>MM CUL-3/TCR-3: Discovery of Previously Unknown Cultural or Tribal Resources</li> <li>MM CUL-4/TCR-4: Unanticipated Discovery of Human Remains</li> </ul>
<b>TCR-3:</b> Potential for Unauthorized Collection of CA-SBA-71 During Implementation of Decommissioning (Components 1 and 2)	LTSM	MM CUL-2/TCR-2: Cultural Resources Sensitivity Training MM CUL-5/TCR-5: Cultural Resources Protective Fencing (CA-SBA-71)
TCR-4: Cumulative Impacts to Tribal Cultural Resources (Components 1 and 2)	LTSM	<ul> <li>MM CUL-1/TCR-1: Tribal Cultural Resources Monitor (Component 2 only)</li> <li>MM CUL-2/TCR-2: Cultural Resources Sensitivity Training</li> <li>MM CUL-3/TCR-3: Discovery of Previously Unknown Cultural or Tribal Resources</li> <li>MM CUL-4/TCR-4: Unanticipated Discovery of Human Remains</li> <li>MM CUL-5/TCR-5: Cultural Resources Protective Fencing (CA-SBA-71)</li> </ul>
Geology, Soils, and Paleontological Resources		
<b>GEO-1:</b> Littoral Transport and Beach Width (Component 1)	LTS	None Required
<b>GEO-2:</b> Weathering and Erosion/Bluff Retreat (Component 1)	LTS	None Required

Impact	Impact Class <sup>1</sup>	Recommended MMs
<b>GEO-3:</b> Littoral Transport and Beach Width (Component 2)	LTS	None Required
<b>GEO-4:</b> Weathering and Erosion/Bluff Retreat (Component 2)	LTS	None Required
Greenhouse Gas Emissions		
<b>GHG-1:</b> Decommissioning-related GHG Emissions (Component 1)	LTS	None Required
<b>GHG-2:</b> Decommissioning-related GHG Emissions (Component 2)	LTS	None Required
<b>GHG-3:</b> Project Contribution to Global Climate Change (Components 1 and 2)	LTS	None Required
Hazards and Hazardous Materials Impacts		
<b>HAZ-1:</b> Exposure of Public or Environment to Hazardous Materials (Component 1)	LTSM	<b>MM HAZ-1a:</b> Remedial Action Plan Implementation
		<b>MM HAZ-1b:</b> Hydrocarbon Contaminated Soil Notification(s) and BMPs
		<b>MM HAZ-1c:</b> Oil Spill Contingency Plan Implementation
		<b>MM HWQ-1:</b> Storm Water Pollution Prevention Plan
<b>HAZ-2:</b> Use of Hazardous Materials During Decommissioning Activities (Component 1)	LTSM	<b>MM HAZ-2:</b> Hazardous Materials Management and Contingency Plan
<b>HAZ-3:</b> Exposure of Public or Environment to Hazardous Materials (Component 2)	LTSM	<b>MM HAZ-1a:</b> Remedial Action Plan Implementation
		<b>MM HAZ-1b:</b> Hydrocarbon Contaminated Soil Notification(s) and BMPs

Impact	Impact Class <sup>1</sup>	Recommended MMs
		<b>MM HAZ-1c:</b> Oil Spill Contingency Plan Implementation
		<b>MM HWQ-1:</b> Storm Water Pollution Prevention Plan
<b>HAZ-4:</b> Use of Hazardous Materials During Decommissioning Activities (Component 2)	LTSM	<b>MM HAZ-2:</b> Hazardous Materials Management and Contingency Plan
<b>HAZ-5:</b> Potential Cumulative Hazardous Materials Impacts	LTSM	<b>MM HAZ-1a:</b> Remedial Action Plan Implementation
		<b>MM HAZ-1b:</b> Hydrocarbon Contaminated Soil Notification(s) and BMPs
		<b>MM HAZ-1c:</b> Oil Spill Contingency Plan Implementation
		<b>MM HWQ-1:</b> Storm Water Pollution Prevention Plan
		<b>MM HAZ-2:</b> Hazardous Materials Management and Contingency Plan
Hydrology and Water Quality		
<b>HWQ-1:</b> Potential Water Quality Impacts During Implementation of Decommissioning Project	LTSM/B	<b>MM HAZ-1a:</b> Remedial Action Plan Implementation
(Component 1)		<b>MM HAZ-1b:</b> Hydrocarbon Contaminated Soil Notification(s) and BMPs
		<b>MM HAZ-1c:</b> Oil Spill Contingency Plan Implementation
		<b>MM HAZ-2:</b> Hazardous Materials Management and Contingency Plan

Impact	Impact Class <sup>1</sup>	Recommended MMs	
<b>HWQ-2:</b> Construction-related Erosion and Sedimentation Impacts to Marine and Onshore Water Quality (Component 1)	LTSM	<b>MM HWQ-1:</b> Storm Water Pollution Prevention Plan	
<b>HWQ-3:</b> Potential Water Quality Impacts During Implementation of Decommissioning Project (Component 2)	LTSM/B	<ul> <li>MM HAZ-1a: Remedial Action Plan Implementation</li> <li>MM HAZ-1b: Hydrocarbon Contaminated Soil Notification(s) and BMPs</li> <li>MM HAZ-1c: Oil Spill Contingency Plan Implementation</li> <li>MM HAZ-2: Hazardous Materials Management and Contingency Plan</li> </ul>	
<b>HWQ-4:</b> Construction-related Erosion and Sedimentation Impacts to Marine and Onshore Water Quality (Component 2)	LTSM	<b>MM HWQ-1:</b> Storm Water Pollution Prevention Plan	
<b>HWQ-5:</b> Potential for Cumulative Water Quality Impacts (Components 1 and 2)	LTSM	<b>MM HWQ-1:</b> Storm Water Pollution Prevention Plan	
Land Use and Planning			
<b>LU-1:</b> Temporary Conflicts with State and Local Policies (Components 1 and 2)	LTSM	<ul> <li>MM AES-1a: Overnight Storage of Equipment</li> <li>MM AES-1b: Material Removal at Construction</li> <li>Completion</li> <li>MM AES-1c: Minimize Night Lighting</li> <li>MM AQ-1a: Fugitive Dust Control Measures</li> <li>MM AQ-1b: Equipment Exhaust Emissions</li> <li>Reduction Measures</li> <li>MM BIO-1: Avoidance of Active Cliff Swallow</li> </ul>	

Impact	Impact Class <sup>1</sup>	Recommended MMs
		Nests
		MM BIO-2: Transitional Bat Habitat
		MM BIO-3a: Avoidance of Estuarine
		Waters/Tidewater Goby Relocation
		MM BIO-3b: CRLF Fencing at the EOF
		<b>MM BIO-3c:</b> Environmental Awareness Training
		<b>MM BIO-3d:</b> Biological Pre-activity Surveys and Monitoring
		MM BIO-3e: Delineation of Work Limits
		MM BIO-4: Grunion Spawning Avoidance
		MM BIO-5a: Coastal Wetlands Mitigation
		<b>MM BIO-5b:</b> Retain Coastal Wetlands Adjacent to Pier 421-2
		MM BIO-6a: Coastal Bluff Scrub Replacement
		MM BIO-6b: Southern Foredunes Avoidance
		<b>MM HAZ-1a:</b> Remedial Action Plan Implementation
		<b>MM HAZ-1b:</b> Hydrocarbon Contaminated Soil Notification(s) and BMPs
		<b>MM HAZ-1c:</b> Oil Spill Contingency Plan Implementation
		<b>MM HWQ-1:</b> Storm Water Pollution Prevention Plan
		MM REC-1: Maximize Beach Access
<b>LU-2:</b> Cumulative Impacts of Project Implementation (Components 1 and 2)	LTSM	Same as Above

Impact	Impact Class <sup>1</sup>	Recommended MMs
Noise		
<b>N-1:</b> Noise Impacts to Sensitive Receptors (Component 1)	LTS	None Required
<b>N-2:</b> Noise Impacts to Sensitive Receptors (Component 2)	LTS	None Required
<b>N-3:</b> Cumulative Decommissioning/Construction Noise (Components 1 and 2)	LTS	None Required
Public Services		
<b>PS-1:</b> Potential for Short-term Impacts to Public Services During Decommissioning Activities (Components 1 and 2)	LTS	None Required
Recreation		
<b>REC-1:</b> Temporary Loss of Recreational Access During Decommissioning Activities (Component 1)	LTSM	<b>MM AES-1a:</b> Overnight Storage of Equipment <b>MM REC-1:</b> Maximize Beach Access
<b>REC-2:</b> Increase in Beach Area Associated with Removal of Piers and Caissons (Component 1)	В	None Required
<b>REC-3:</b> Temporary Loss of Recreational Access During Decommissioning Activities (Component 2)	LTSM	MM AES-1a: Overnight Storage of Equipment
Transportation and Traffic		
<b>T-1:</b> Decommissioning Vehicle Trip Generation (Component 1)	LTS	None Required
<b>T-2:</b> Traffic Safety Associated with Heavy-duty Truck Operations (Component 1)	LTSM	<b>MM T-1:</b> Truck Entrance Signage
<b>T-3:</b> Decommissioning Vehicle Trip Generation (Component 2)	LTS	None Required

Impact	Impact Class <sup>1</sup>	Recommended MMs
<b>T-4:</b> Traffic Safety Associated with Heavy-duty Truck Operations (Component 2)	LTSM	<b>MM T-1:</b> Truck Entrance Signage
<b>T-5:</b> Contribution to Cumulative Transportation/Traffic impacts (Components 1 and 2)	LTSM	MM T-1: Truck Entrance Signage
Utilities and Service Systems		
<b>US-1:</b> Generation of Project Waste During Decommissioning Activities (Component 1)	LTS	None Required
<b>US-2:</b> Generation of Project Waste During Decommissioning Activities (Component 2)	LTS	None Required

Notes:<sup>1</sup> B = Beneficial (Green); LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact (Red)

	Impact Class <sup>1</sup>		
	Proposed Project	No Project Alternative	Single Component Abandonment Alternative
Section 4.1, Aesthetics			
<b>AES-1:</b> Effects on Public Views from Decommissioning Activities (Component 1)	LTSM	NI	LTSM
<b>AES-2:</b> Visual Improvements due to Removal of Component 1 Infrastructure (421-1 and 421-2 Pier and Wells/Caissons)	В	SU	В
<b>AES-3:</b> Effects on Public Views from Decommissioning Activities (Component 2)	LTSM	NI	NI
<b>AES-4:</b> Potential for Cumulative Aesthetic Impacts to Public Views (Components 1 and 2)	LTSM	NI	LTSM
Section 4.2, Air Quality			
<b>AQ-1:</b> Decommissioning-related Air Pollutant Emissions (Component 1)	LTS	NI	LTS
<b>AQ-2:</b> Decommissioning-related Air Pollutant Emissions (Component 2)	LTS	NI	NI
<b>AQ-3:</b> Cumulative Air Quality Impacts (Components 1 and 2)	LTS	NI	LTS
Section 4.3, Biological Resources			
BIO-1: Disturbance of Nesting Birds	LTSM	NI	LTSM
BIO-2: Loss of a Bat Roost	LTSM	NI	LTSM

 Table ES-2. Summary of Impacts: Proposed Project and Alternatives

	Impact Class <sup>1</sup>		
Impact	Proposed Project	No Project Alternative	Single Component Abandonment Alternative
<b>BIO-3:</b> Temporary Effects of Potential Hydrocarbon Discharge	LTSM	SU	LTSM
<b>BIO-4:</b> Loss of Coastal Wetlands (Component 1)	LTS	NI	LTSM
<b>BIO-5:</b> Disturbance of Terrestrial and Aquatic Special-Status Wildlife Species	LTSM	NI	LTSM-
BIO-6: Disturbance of Intertidal ESHA	LTS	NI	LTS-
<b>BIO-7:</b> Disturbance of Marine Special-Status Species	LTSM	NI	LTSM-
<b>BIO-8:</b> Loss of Coastal Wetlands (Component 2)	LTSM	NI	NI
<b>BIO-9:</b> Loss of Terrestrial ESHA/Sensitive Natural Communities	LTSM	NI	NI
BIO-10: Loss of Special-Status Plant Species	LTS	NI	NI
<b>BIO-11:</b> Cumulative Impacts to Biological Resources (Components 1 and 2)	LTSM	NI	LTSM-
Section 4.4, Cultural Resources			
<b>CR-1:</b> Potential Impacts to Previously Undiscovered Cultural Resources During Implementation of Decommissioning (Component 1)	LTS	NI	LTS
<b>CR-2:</b> Potential Impacts to Previously Undiscovered Cultural Resources During	LTSM	NI	NI

	Impact Class <sup>1</sup>		
Impact	Proposed Project	No Project Alternative	Single Component Abandonment Alternative
Implementation of Decommissioning (Component 2)			
<b>CR-3:</b> Potential for Unauthorized Collection of CA-SBA-71 During Implementation of Decommissioning (Components 1 and 2)	LTSM	NI	LTSM-
<b>CR-4:</b> Cumulative Impacts to Cultural Resources (Components 1 and 2)	LTSM	NI	LTSM-
Section 4.5, Cultural Resources - Tribal			
<b>TCR-1:</b> Potential Impacts to Previously Undiscovered Tribal Cultural Resources During Implementation of Decommissioning (Component 1)	LTS	NI	LTS
<b>TCR-2:</b> Potential Impacts to Previously Undiscovered Tribal Cultural Resources During Implementation of Decommissioning (Component 2)	LTSM	NI	NI
<b>TCR-3:</b> Potential for Unauthorized Collection of CA-SBA-71 During Implementation of Decommissioning (Components 1 and 2)	LTSM	NI	LTSM-
<b>TCR-4:</b> Cumulative Impacts to Tribal Cultural Resources (Components 1 and 2)	LTSM	NI	LTSM-

	Impact Class <sup>1</sup>		
Impact	Proposed Project	No Project Alternative	Single Component Abandonment Alternative
Section 4.6, Geology, Soils, and Paleontological Resources			
<b>GEO-1:</b> Littoral Transport and Beach Width (Component 1)	LTS	NI	LTS
<b>GEO-2:</b> Weathering and Erosion/Bluff Retreat (Component 1)	LTS	NI	LTS
<b>GEO-3:</b> Littoral Transport and Beach Width (Component 2)	LTS	NI	NI
<b>GEO-4:</b> Weathering and Erosion/Bluff Retreat (Component 2)	LTS	NI	NI
Section 4.7, Greenhouse Gas Emissions			
<b>GHG-1:</b> Decommissioning-related GHG Emissions (Component 1)	LTS	NI	LTS
<b>GHG-2:</b> Decommissioning-related GHG Emissions (Component 2)	LTS	NI	NI
<b>GHG-3:</b> Project Contribution to Global Climate Change (Components 1 and 2)	LTS	NI	LTS-
Section 4.8, Hazards and Hazardous Materials Impacts			
<b>HAZ-1:</b> Exposure of Public or Environment to Hazardous Materials (Component 1)	LTSM	NI	LTSM
<b>HAZ-2:</b> Use of Hazardous Materials During Decommissioning Activities (Component 1)	LTSM	NI	LTSM

	Impact Class <sup>1</sup>		
Impact	Proposed Project	No Project Alternative	Single Component Abandonment Alternative
<b>HAZ-3:</b> Exposure of Public or Environment to Hazardous Materials (Component 2)	LTSM	NI	NI
<b>HAZ-4:</b> Use of Hazardous Materials During Decommissioning Activities (Component 2)	LTSM	NI	NI
<b>HAZ-5:</b> Potential Cumulative Hazardous Materials Impacts	LTSM	NI	LTSM-
Section 4.9, Hydrology and Water Quality			
<b>HWQ-1:</b> Potential Water Quality Impacts During Implementation of Decommissioning Project (Component 1)	LTSM/B	SU	LTSM
<b>HWQ-2:</b> Construction-related Erosion and Sedimentation Impacts to Marine and Onshore Water Quality (Component 1)	LTSM	NI	LTSM
<b>HWQ-3:</b> Potential Water Quality Impacts During Implementation of Decommissioning Project (Component 2)	LTSM/B	NI	NI
<b>HWQ-4:</b> Construction-related Erosion and Sedimentation Impacts to Marine and Onshore Water Quality (Component 2)	LTSM	NI	NI
<b>HWQ-5:</b> Potential for Cumulative Water Quality Impacts (Components 1 and 2)	LTSM	NI	LTSM-
Section 4.10, Land Use and Planning			

	Impact Class <sup>1</sup>		
Impact	Proposed Project	No Project Alternative	Single Component Abandonment Alternative
<b>LU-1:</b> Temporary Conflicts with State and Local Policies (Components 1 and 2)	LTSM	NI	LTSM-
<b>LU-2:</b> Cumulative Impacts of Project Implementation (Components 1 and 2)	LTSM	NI	LTSM-
Section 4.11, Noise			
<b>N-1:</b> Noise Impacts to Sensitive Receptors (Component 1)	LTS	NI	LTS
<b>N-2:</b> Noise Impacts to Sensitive Receptors (Component 2)	LTS	NI	NI
<b>N-3:</b> Cumulative Decommissioning/Construction Noise (Components 1 and 2)	LTS	NI	LTS-
Section 4.12, Public Services			
<b>PS-1:</b> Potential for Short-term Impacts to Public Services During Decommissioning Activities (Components 1 and 2)	LTS	NI	LTS-
Section 4.13, Recreation			
<b>REC-1:</b> Temporary Loss of Recreational Access During Decommissioning Activities (Component 1)	LTSM	NI	LTSM
<b>REC-2:</b> Increase in Beach Area Associated with Removal of Piers and Caissons (Component 1)	В	SU	В

	Impact Class <sup>1</sup>		
Impact	Proposed Project	No Project Alternative	Single Component Abandonment Alternative
<b>REC-3:</b> Temporary Loss of Recreational Access During Decommissioning Activities (Component 2)	LTSM	NI	NI
Section 4.14, Transportation and Traffic			
<b>T-1:</b> Decommissioning Vehicle Trip Generation (Component 1)	LTS	NI	LTS
<b>T-2:</b> Traffic Safety Associated with Heavy- duty Truck Operations (Component 1)	LTSM	NI	LTSM
<b>T-3:</b> Decommissioning Vehicle Trip Generation (Component 2)	LTS	NI	NI
<b>T-4:</b> Traffic Safety Associated with Heavy- duty Truck Operations (Component 2)	LTSM	NI	NI
<b>T-5:</b> Contribution to Cumulative Transportation/Traffic impacts (Components 1 and 2)	LTSM	NI	LTSM-
Section 4.15, Utilities and Service Systems			
<b>US-1:</b> Generation of Project Waste During Decommissioning Activities (Component 1)	LTS	NI	LTS
<b>US-2:</b> Generation of Project Waste During Decommissioning Activities (Component 2)	LTS	NI	NI

Notes:<sup>1</sup> B = Beneficial (Green); LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact (Red), "-" = less than the proposed Project

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