



CITY OF LONG BEACH

DEPARTMENT OF DEVELOPMENT SERVICES

333 West Ocean Blvd., 3rd Floor, Long Beach, CA 90802 (562) 570-5237

H-1

January 16, 2018

HONORABLE MAYOR AND CITY COUNCIL
City of Long Beach
California

RECOMMENDATION:

Receive the supporting documentation into the record, conclude the public hearing, consider third-party appeals by Ann Cantrell representing Citizens About Responsible Planning, and Anna Christensen/Charles Moore representing Protect the Long Beach/Los Cerritos Wetlands, and uphold the Planning Commission's recommendation and deny the appeals, adopt a Resolution certifying Environmental Impact Report (03-15), select the environmentally-superior project alternative (#5), and make certain findings and determinations related thereto; adopt a statement of overriding considerations, and approve a Mitigation Monitoring and Reporting Program for the Los Cerritos Wetlands and Oil Consolidation Project (State Clearinghouse No. 2016041083);

Declare an Ordinance amending the Southeast Area Development Improvement Plan (SEADIP / PD-1) (Zoning Code Amendment), read the first time and laid over to the next regular meeting of the City Council for final reading;

Adopt a Resolution directing the Director of Development Services to submit a request to the California Coastal Commission to certify an amendment to the Certified Local Coastal Program;

Adopt an Ordinance approving an amendment to the City's Oil Map by adding the Pumpkin Patch Site to Oil Area 8 and creating a new Oil Area for the Los Cerritos Wetlands Authority Site; and,

Approve Site Plan Review and Certificate of Compliance to consolidate existing oil operations, implement a wetlands habitat restoration project, and provide public access opportunities, located on four sites (Synergy Oil Field at 6433 E. 2nd Street, City property at the southeast corner of Studebaker Road and 2nd Street, Pumpkin Patch site at 6701 E. Pacific Coast Highway, and the Los Cerritos Wetlands Authority site at the northeast corner of Studebaker Road and 2nd Street) within the Southeast Area Development and Improvement Plan (SEADIP / PD-1) area. (District 3)

DISCUSSION

On November 30, 2017, the Planning Commission conducted a public hearing on the Los Cerritos Wetlands Oil Consolidation and Restoration project (Project) to consider requests to certify Environmental Impact Report (03-15), approve a Zoning Code Amendment to SEADIP (PD-1) to allow the project uses; certify an amendment to the Local Coastal Plan; amend the City’s Oil Drilling Map; and, approve a Site Plan Review and a Certificate of Compliance. The Planning Commission forwarded a recommendation of approval on each of the requested actions to the City Council (Exhibit A – Planning Commission staff report). The Project site comprises four properties in the southeastern portion of the City. The Project site is generally bordered by the Los Cerritos Channel to the north, beyond which is a residential development; Studebaker Road to the east, beyond which is the AES Power Plant site, and the San Gabriel River; the San Gabriel River to the southwest, beyond which are undeveloped areas; and Pacific Coast Highway to the west, beyond which is commercial development and Alamitos Bay. The site includes Steamshovel Slough, which is approximately 1,950 feet long and is considered a historic or “ancient” marsh in that it has not been modified through dredging or filling.

The site and surrounding areas were historically all wetland areas, but is now characterized by the presence of remnant wetlands, marinas and harbors, oil fields, power plants, oil drilling, commercial development, and low-density residential development. The oil fields were established in the 1930s and portions of two of the sites were used for a short time as a municipal landfill.

Table 1 provides site information about the four properties that comprise the Project site (Exhibit B – Location Map):

Table 1 – Existing Site Information				
Site	Size	Site Boundary	Existing Use	SEADIP Subarea
Synergy Oil Field	150 acres	North: Los Cerritos Channel East: Studebaker Road West: Pacific Coast Highway South: 2nd Street	Oil field (39 wells); Synergy Office building; wetlands	11a and 33
City property	33 acres	North: 2nd Street East: Shopkeeper Road West: Private Property South: San Gabriel River	Wetlands; Oil field (13 wells)	25
Pumpkin Patch site	7 acres	North: Studebaker Road (stub) East: City Property West: Pacific Coast Highway South: San Gabriel River	Seasonal pumpkin and Christmas tree sales; Undeveloped; 1 well	25
LCWA site	5 acres	North: Private Property East: Private Property West: Studebaker Road South: Westminster Ave	Industrial Storage; Undeveloped	19

The Project generally includes various site improvements to each property. All public rights-of-way will be improved to current City standards including, but not limited to, sidewalks, bikeways, and undergrounding of eligible utilities. Furthermore, the phasing out of existing oil wells, pipelines, and associated facilities on the Synergy Oil Field, Pumpkin Patch site, and City Property would occur in a phased manner, beginning from the "New Occupancy Date," which is the issuance of a Certificate of Occupancy for the new office or warehouse on the Pumpkin Patch site. Half of the oil wells would be removed within 20 years of the New Occupancy Date, and all wells removed within 40 years of the New Occupancy Date. Furthermore, if an oil well produces less than one full barrel of oil per day for a period of 18 consecutive months, the well would immediately be plugged and abandoned. All oil wells are to be abandoned in accordance to the standards set forth by the California Department of Oil, Gas, and Geothermal Resources.

The Synergy Oil Field is divided into two portions: northern and southern. The northern portion includes wetlands, Steamshovel Slough, tidal channels, and mudflats. There are no active oil wells in the northern portion. The southern portion contains wetlands, an active oil field with 39 wells, two tank farms, and a one-story wood office building, the Bixby Ranch Field Office, which is located within the Newport-Inglewood Fault zone. The site takes access from 2nd Street via a signalized intersection at Shopkeeper Road.

During the first two years of the Project, the northern portion of the Synergy Oil Field would be restored to reestablish historic tidal salt marsh and related habitats. This involves constructing sheet piles and earthen berms to create a southern limit to the area, establish tidal channels, remove berms and roads from non-tidal areas, and lowering the elevation of the northern edge of Steamshovel Slough to create additional high marsh species habitat. The applicant also intends to pursue designation of this northern section as a wetlands mitigation bank and convey the property to the Los Cerritos Wetlands Authority (LCWA). Restoration on the northern portion of the Synergy Oil Field would begin immediately.

Regarding the southern portion, the Project would remove 95 percent of the above ground pipelines and tanks and begin revegetation activities during the first two years. Then, the existing Bixby Ranch Field Office (Field Office) would be relocated out of the Fault zone to a 1.42-acre previously-disturbed area, approximately 427 feet southwest from its current location. The Field Office is eligible for listing in the California Register of Historic Resources and would undergo exterior renovation and restoration. The Field Office would be converted to a publicly-accessible visitors center, along with a paved parking lot and landscaping. The access point to the site from 2nd Street would be improved.

Along with the establishment of the Visitors Center, a ten-foot-wide, pedestrian-only decomposed granite trail would be constructed, connecting the visitor center parking lot to a wetlands overlook before continuing along the site's eastern boundary (near Studebaker Road) to the Los Cerritos Channel.

The City Property site is currently accessed from Shopkeeper Road via an existing driveway. Currently, there are 11 active wells and 2 idle wells on-site, for a total of 13 wells. The Project proposes removal of approximately 95 percent of the oil production infrastructure, including above-ground pipelines and tanks, during the first year, with the

remaining infrastructure supporting the existing wells until they are phased out. Construction on the site will involve an approximately 2,200-foot above-ground pipeline system to connect the Pumpkin Patch site to the LCWA site. The proposed pipeline system would extend from the LCWA site beneath the intersection of Studebaker Road and 2nd Street, then run along an existing service road to the Pumpkin Patch site. The pipeline system includes a water injection line, gas line, and various oil lines and would be contained within an earthen berm, approximately 18 inches tall, on both sides. There would also be an underground utility corridor for gas, water, electrical, and communication lines. The applicant has an existing Surface Use Release and Grant Easement (SURGE) Agreement, which defines the current rights for surface use of the City Property. The applicant and the City will amend the SURGE Agreement to reflect these removals as deemed necessary by the City. To ensure that the Project progresses as planned, staff has included a condition of approval for reports to be submitted to the City at regular intervals identifying the amount of oil-related infrastructure that has been removed.

The Pumpkin Patch site is currently accessed from a driveway via the stub of Studebaker Road that is east of Pacific Coast Highway. Development of the Pumpkin Patch site will include street and sidewalk improvements to the Studebaker Road stub, along the property's frontage. Two driveway access points will be created to access the site; the first driveway provides access to the office building and the second is primarily used for the oil production operations. A turnaround will be constructed at the future terminus of Studebaker Road in accordance with City specifications.

The proposed 5,200 square-foot office building on the Pumpkin Patch site is designed with a modern look, with clean lines and substantial glazing. The exterior facade consists of a glass curtain wall with tinted spandrel glass, aluminum sunshades, bronze aluminum framing, and wooden clad eaves to add warmth to the building. The sloping roof element provides shading for the building and establishes character at a gateway location. The roof includes solar panels that generate power for site usage. The 9,750 square-foot warehouse is connected to the office building and will include a painted concrete exterior, matching the office building. The colors used on the exterior are varied, in order to add interest. An 18-foot to 20-foot screen wall along Pacific Coast Highway and the San Gabriel River will minimize the view of oil production equipment. There is a 30-foot landscaped setback between the Pacific Coast Highway right-of-way and the building/wall, allowing for a softened appearance. Landscaping improvements will be incorporated along the base of the building, as well as throughout new parking areas. The site plan includes 37 parking spaces, which satisfies the zoning code parking requirements for the building, along with electric vehicle charging stations and accessible spaces. The applicant anticipates a space for a City gateway sign at the southwestern corner of the site, which marks the entrance to the City from Seal Beach.

There is currently one active well on the Pumpkin Patch site. The oil production facilities proposed on the Pumpkin Patch site will include 50 new wells contained in a well cellar, comprised of oil production, water injection, and water source wells. These wells would be drilled using a 160-foot-tall drilling rig encased in a sound-attenuated shell. Well drilling would occur over the course of eight years, at which point the drilling rig would be removed. For the duration of the operation, a 120-foot collapsible workover rig will be on site periodically for well maintenance and workover operations.

Access to the LCWA Property is via a driveway on Studebaker Road, north of the intersection of 2nd Street/Westminster Avenue. The existing driveway would be relocated slightly north to avoid an existing utility pole, and a second driveway would be constructed for right-in/right-out access from Westminster Avenue. Construction on this site would include 70 new wells, comprised of oil production, water injection and water source wells, drilled over the course of 14-15 years. Four oil storage tanks (one 28,000-barrel oil tank, one 5,000-barrel water tank, and two 14,000-barrel tanks), ranging from 35 to 50 feet high, would be constructed. Associated equipment would include an elevated pipe rack and three well cellars. Also, a perimeter screen wall, buffer landscaping, sidewalks, and bicycle lanes are proposed.

The primary portion of the energy system microgrid would be constructed on the LCWA site and will connect to the Pumpkin Patch site. The energy system includes a solar photovoltaic system on the Pumpkin Patch site. The main components of the energy system are natural gas turbines located on the LCWA site. The natural gas produced during the oil extraction process powers the facility, producing both electricity and steam for power and heat per the cogeneration design of the system. Until sufficient quantities of natural gas are produced, the project includes an interconnection to Southern California Edison facilities.

A Zoning Code Amendment is required to amend SEADIP to allow for the new oil production areas, wetlands restoration program, visitor's center, and clarification of open space requirements for oil production areas. SEADIP anticipated residential and commercial development on wetland areas, and is no longer an accurate reflection of on-the-ground conditions. As such, it is necessary to update SEADIP to eliminate those uses from the wetlands areas, and also accommodate for wetlands restoration over time. The existing oil production areas predated the adoption of SEADIP and were not acknowledged as uses, even though they were legally permitted. As such, these uses will be acknowledged as "existing" in Subareas 33 and 25. Lastly, the once-anticipated extension of Studebaker Road from Pacific Coast Highway has been eliminated from SEADIP and replaced with a possible future connection of Studebaker Road at Pacific Coast Highway to Shopkeeper Road. These road segments already exist as dedicated rights-of-way; however, they cannot be completed until the office development and retail center (Marketplace) rebuilds or substantially reinvests. Because SEADIP is incorporated as part of the City's Local Coastal Program, amendments to SEADIP require a Local Coastal Program Amendment to be certified by the California Coastal Commission (CCC). The proposed amendments to SEADIP are included as Exhibit C. A General Plan Consistency analysis for the Zoning Code Amendment can be found in Exhibit D.

The applicant requests amendment of the City's Oil Map to add the Pumpkin Patch site and the LCWA Property as oil areas in which oil can be drilled. The Pumpkin Patch site would be added to the current Oil Area 8. The LCWA site is proposed as Oil Area 25. Chapter 12.08 requires that the Planning Commission forward a recommendation to the City Council on the approval of all new or modified oil drilling areas. The Oil Map Amendment components, including a map of existing Oil Drilling Area 8, legal description of proposed Oil Drilling Area 8, legal description of future Oil Drilling Area 25, and a map

showing the proposed new Oil Areas are included as Exhibit E. The request complies with required findings for Oil Map Amendments (Exhibit F – Oil Map Amendment Findings).

Site Plan Review is required for the relocation of the Bixby Ranch Field Office on the Synergy site, and construction of the building, warehouse, and associated improvements on the Pumpkin Patch site. All physical improvements in the Coastal Zone, including the buildings, oil facilities (pipelines, wells, tanks, etc.) are subject to Coastal Development Permits. The improvements on all four sites are detailed in Exhibit G – Plans. The Site Plan Review findings are included in further detail in Exhibit H – Site Plan Review Findings. The Site Plan Review also includes conditions of approval to ensure that construction and operation of the project progresses in accordance with project-specific and standard requirements (Exhibit I – Site Plan Review Conditions of Approval).

The Project sites consist of parcels within and outside of the City's certified Local Coastal Program (LCP). This would typically result in two separate permitting processes, a Local Coastal Development Permit (LCDP) processed by the City for areas within the certified LCP and a separate Coastal Development Permit (CDP) processed by the CCC for the area outside of the certified LCP. On July 1, 2014, the City Council adopted a Resolution authorizing the initiation of a Consolidated Coastal Development Permit (CCDP) process as allowed under Section 30601.3 of the Coastal Act. The consolidated process is intended to improve the integration, efficiency and effectiveness of decision-making when a single project spans across multiple jurisdictions. The consolidated process was mutually agreed upon by the project applicant, the City and the CCC. Under this consolidated approach, the City prepared the California Environmental Quality Act (CEQA) document and all local approvals, with the exception of the LCDP. Upon certification of the Environmental Impact Report (EIR) and approval of the local entitlements by the City, the CCC will then process the requested LCP amendments and the CCDP. As a result, the CCC will have the final authority to refine project details, such as pipeline routing, to best achieve conformity with the provisions of the Coastal Act and balance competing goals.

The applicant is requesting a Certificate of Compliance to formally establish the legal description and boundaries of the Synergy Oil Field site. Certificates of Compliance are used to document that parcels created prior to, or exempt from, the California Subdivision Map Act are found to comply with the City's land use development standards, such as minimum lot size and street access. A Certificate of Compliance is needed for the Synergy Oil Field for future conveyance to the Los Cerritos Wetlands Authority. The Certificate of Compliance is included as Exhibit J.

The Project allows for consolidation of existing oil operations using more modern and efficient oil production technology and restoration of the still-intact portions of the historic Los Cerritos Wetlands, complete with public access trail and visitors' center. The Project also includes a new office building and warehouse for the Synergy Oil Company that marks a gateway location at the entrance to the City with a new entry monument. The Planning Commission recommends that the City Council find that the Project complies with the General Plan and approve the Project.

Public hearing notices were distributed on December 28, 2017, in accordance with the requirements of Chapter 21.21 of the Long Beach Municipal Code. Any written testimony received following preparation of this report will be provided to the City Council prior to the hearing.

In accordance with CEQA and the CEQA Guidelines, an Initial Study/Notice of Preparation (IS/NOP) was prepared and concluded that the Project would potentially have significant impacts to the environment, which warranted preparation of an Environmental Impact Report.

A Draft Environmental Impact Report (DEIR) (State Clearinghouse Number 2016041083) was prepared for this Project. After analysis, the Draft EIR determined that the Project would result in less-than-significant impacts for all environmental topics except for the Project's construction activities, which would have short-term significant and unavoidable impacts to air quality in that they would exceed regional significance thresholds for construction related Nitrogen Oxide (NO_x) emissions. Mitigation Measure AQ-2 would reduce construction-related NO_x emissions; however, the NO_x emissions would still exceed the threshold. Since Mitigation Measure AQ-2 requires the use of construction equipment that meets the most stringent emissions standards, there are no feasible measures to reduce the construction NO_x emissions to less than the threshold. For this reason, the Project's construction impacts to air quality are considered significant and unavoidable. To approve a project with significant and unavoidable impacts, the City Council must adopt a Statement of Overriding Considerations, which includes findings that the Project's benefits outweigh the stated impacts to the environment.

The DEIR circulated for a 45-day public review period between July 24, 2017 and September 6, 2017 (Exhibit K – Draft EIR). Public comments were received during the DEIR public review period from various public agencies, residents, and stakeholders. Responses to these comments were prepared and distributed to the commenters on Friday, November 17, 2017, in accordance with CEQA Guidelines. The responses to the comments, errata to the DEIR, and Mitigation Monitoring and Report Program are included as part of the Final EIR (Exhibit L – Final EIR). The Findings and Statement of Overriding Considerations is included as Exhibit M.

CEQA requires that EIRs include a project alternatives analysis, which include alternatives to lessen significant effects to the environment, and identification of an environmentally superior alternative. The DEIR studied five alternatives, including Alternative 5, Relocated Pipeline Alternative. Alternative 5 would relocate the proposed above-ground pipeline and utility corridor (pipeline system) to the wider oil service road on the eastern side of the City Property site. The Relocated Pipeline Alternative would place the pipeline system alongside a wider service road containing more previously-disturbed areas, and would minimize disturbance to Biological Resources (existing wetlands and sensitive vegetation) along the proposed alignment. On a comparison of all five alternatives, excluding the No Project alternative per CEQA Guidelines, the Relocated Pipeline Alternative is considered the environmentally superior alternative.

Although the Planning Commission's action was a recommendation and not a final approval, an appeal of their recommendations was filed by Ann Cantrell representing Citizens About Responsible Planning, and Anna Christensen/Charles Moore representing Protect the Long Beach/Los Cerritos Wetlands. The appeal forms state a variety of reasons for the appeal including: inadequate environmental review, the Project does not conform to the Local Coastal Program, inadequate mitigation, pipeline is unsafe, inadequate outreach and public input, inadequate engagement with local California Indian Tribes, use of public property for private use, legal status of Project properties, and numerous assertions of misinformation. One appeal additionally incorporates all public comments and oral testimonies from the Planning Commission public hearing (Exhibits N and O – Appeals). The appellants provided no additional information to support the basis of their appeal beyond what is presented in the appeal application form.

The Project was carried out in accordance with all applicable regulations, including the City's General Plan, the Long Beach Municipal Code, the Local Coastal Program, the California Coastal Act, State Planning and Zoning Law, and the California Environmental Quality Act. State CEQA Guidelines prescribes the method by which environmental documents are prepared and the process of preparation and analysis, including the procedures for tribal consultations. Throughout the two-year process, there have been multiple opportunities for public input and engagement, including Planning Commission meetings (study sessions and public hearing), CEQA public review periods, and the CEQA Scoping Meeting. Furthermore, the applicant has independently engaged in public outreach activities throughout the community and with other public agencies. Denial of the appeal is appropriate because the Project record and findings demonstrate that the Project process is in accordance with regulations, and the findings are supported by facts that were extensively verified and evaluated. Additionally, the applicant has submitted a response to the appeals, confirming that the points raised in the appeal were previously addressed during the project review process, or covered in the Draft and Final EIRs. The applicant's response is included as Exhibit P.

This matter was reviewed by Assistant City Attorney Michael J. Mais on December 29, 2017 and by Budget Operations Administrator Gracie Yoon on December 28, 2017.

TIMING CONSIDERATIONS

City Council action is requested on January 16, 2018. Section 21.21.103B of the Zoning Regulations requires a City Council hearing on a Planning Commission recommendation to take place within 60 days of the Planning Commission hearing, which took place on November 30, 2017.

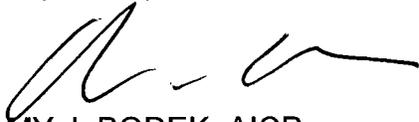
FISCAL IMPACT

The recommended actions do not require the City to expend any funds. As a result, the recommended actions do not have a fiscal impact. There is no local job impact associated with these recommendations.

SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,



AMY J. BODEK, AICP
DIRECTOR OF DEVELOPMENT SERVICES

AJB:LFT:CK:ct

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APPROVED:



PATRICK H. WEST
CITY MANAGER

Resolution for Environmental Impact Report

Ordinance amending the Southeast Area Development and Improvement Plan (SEADIP / PD-1)

Resolution referring Local Coastal Program Amendment to the California Coastal Commission

Ordinance amending Title 12 of the Long Beach Municipal Code and the City's Oil Map

Exhibit A – Planning Commission Report – November 30, 2017

Exhibit B – Location Map

Exhibit C – Proposed Amendments to SEADIP/PD-1 (Redlined)

Exhibit D – Findings – General Plan Consistency

Exhibit E – Proposed Amendments to Oil Map/Title 12

Exhibit F – Findings – Oil Map Amendment

Exhibit G – Plans (Site Plan, Elevations, Landscaping)

Exhibit H – Findings – Site Plan Review

Exhibit I – Site Plan Review Conditions of Approval

Exhibit J – Certificate of Compliance

Exhibit K – Draft Environmental Impact Report (EIR)

Exhibit L – Final EIR (Response to Comments, Errata, and Mitigation Monitoring and Reporting Program)

Exhibit M – Findings and Statement of Overriding Considerations

Exhibit N – Appeal – Ann Cantrell, Citizens About Responsible Planning

Exhibit O – Appeal – Anna Christensen/Charles Moore, Protect the Long Beach/Los Cerritos Wetlands

Exhibit P – Applicant response to Appeals

Resolution
Certifying the
EIR-BOMP

OFFICE OF CITY ATTORNEY
CHARLES F. JOHNSON, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

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RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LONG BEACH CERTIFYING THAT THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE LOS CERRITOS WETLANDS OIL CONSOLIDATION AND RESTORATION PROJECT (STATE CLEARINGHOUSE NO. 2016041083) HAS BEEN COMPLETED IN ACCORDANCE WITH THE PROVISIONS OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT AND STATE AND LOCAL GUIDELINES AND MAKING CERTAIN FINDINGS AND DETERMINATIONS RELATIVE THERETO; ADOPTING A STATEMENT OF OVERRIDING CONSIDERATIONS; AND ADOPTING A MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

WHEREAS, Beach Oil Minerals, LLC and Los Cerritos Wetlands Authority have proposed the Los Cerritos Wetlands Oil Consolidation and Restoration project ("Project") to consolidate existing oil operations, implement a wetlands habitat restoration project, and provide public access opportunities, located on four sites (Synergy Oil Field at 6433 E. 2nd Street, City property at the southeast corner of Studebaker Road and 2nd Street, the Pumpkin Patch site at 6701 E. Pacific Coast Highway, and the Los Cerritos Wetlands Authority site at the northeast corner of Studebaker Road and 2nd Street);

WHEREAS, the Project site is located within the Southeast Area Development and Improvement Plan (SEADIP)(PD-1) zone and within the Local Coastal Zone of the City of Long Beach. Said Project is more fully described in the Environmental Impact Report (EIR), a copy of which EIR is incorporated herein by this reference as though set forth herein in full, word for word;

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
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1 WHEREAS, Project implementation will require a Site Plan Review, a
2 Consolidated Coastal Development Permit, and other discretionary and ministerial perm
3 and approvals that may be deemed necessary including, but not limited to, temporary
4 street closure permits, grading permits, excavation permits, foundation permits, and
5 building permits;

6 WHEREAS, the City began an evaluation of the proposed project by issuing
7 a Notice of Preparation (NOP) circulated from April 28, 2016 to May 27, 2016. A Notice of
8 Completion was prepared and filed with the State Office of Planning and Research on July
9 24, 2017. The Draft Environmental Impact Report (DEIR) was circulated between July 24,
10 2017 and September 6, 2017 and completed on November 17, 2017;

11 WHEREAS, implementation and construction of the Project constitutes a
12 "project" as defined by the California Environmental Quality Act (CEQA), Public Resources
13 Code Sections 21000 et seq., and the City of Long Beach is the Lead Agency for the
14 Project under CEQA;

15 WHEREAS, it was determined during the initial processing of the Project t
16 it could have potentially significant effects on the environment, requiring the preparation of
17 an EIR;

18 WHEREAS, the City prepared full and complete responses to the comments
19 received on the DEIR, and distributed the responses in accordance with Public Resources
20 Code section 21092.5;

21 WHEREAS, the Planning Commission reviewed and considered the
22 information in and the comments to the DEIR and the responses thereto at a duly noticed
23 Planning Commission meeting held on November 30, 2017, at which time evidence, both
24 written and oral, was presented to and considered. The Planning Commission determined
25 that the DEIR was fully compliant with CEQA and the CEQA Guidelines and
26 recommended that the City Council certify said DEIR and Final Environmental Impact
27 Report (FEIR) upon review and consideration by the Council;

28 WHEREAS, the City Council has read and considered all environmental

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1 documentation comprising the FEIR, including the DEIR, comments and the responses to
2 comments, and any errata included in the FEIR, and has determined that the FEIR has
3 considered all potentially significant environmental impacts of the Project and is complete
4 and adequate and fully complies with all requirements of CEQA;

5 WHEREAS, the City Council has evaluated and considered all significant
6 impacts, mitigation measures, and project alternatives identified in the FEIR;

7 WHEREAS, CEQA and the State CEQA Guidelines require that where the
8 decision of a public agency allows the occurrence of significant environmental effects that
9 are identified in the EIR, but are not fully mitigated to a level of insignificance, that the
10 public agency state in writing the reasons to support its action based on the EIR and/or
11 other information in the record;

12 WHEREAS, it is the policy of the City, in accordance with the provisions of
13 CEQA and the State CEQA Guidelines, not to approve a project unless (i) all significant
14 environmental impacts have been avoided or substantially lessened to the extent feasible,
15 and (ii) any remaining unavoidable significant impacts are outweighed by specific
16 economic, legal, social, technological, or other benefits of the project, and therefore
17 considered "acceptable" under State CEQA Guidelines section 15093;

18 WHEREAS, CEQA requires that EIRs include a project alternatives analysis,
19 which analysis includes potential alternatives that could lessen any significant effects to
20 the environment, and that the Lead Agency identify a project alternative that is deemed to
21 be the environmentally superior alternative;

22 WHEREAS, the DEIR studied five (5) Project alternatives, including the "No
23 Project Alternative", as well as Alternative 5, the "Relocated Pipeline Alternative", which
24 would relocate the proposed above ground pipeline and utility corridor (pipeline system) to
25 the wider oil service road on the eastern side of the City Property site, as is more fully set
26 forth and detailed in the DEIR and FEIR.

27 NOW, THEREFORE, the City Council of the City of Long Beach does
28 hereby find, determine and resolve that:

1 Section 1. All the above recitals are true and correct and are incorporated
2 herein as though fully set forth.

3 Section 2. The EIR has been completed in compliance with CEQA and
4 the State CEQA Guidelines.

5 Section 3. The EIR, which reflects the City Council's independent
6 judgment and analysis, is hereby adopted, approved, and certified as complete and
7 adequate under CEQA.

8 Section 4. Pursuant to Public Resources Code Section 21081 and State
9 CEQA Guidelines section 15091, the City Council has reviewed and hereby adopts the
10 CEQA Findings of Fact and Statement of Overriding Considerations regarding the
11 environmental effects of the Los Cerritos Oil Consolidation and Wetlands Restoration
12 project as shown on the attached Exhibit "A", which document is incorporated herein by
13 reference as though set forth herein in full, word for word.

14 Section 5. Although the FEIR identifies certain significant environmental
15 effects that would result if the Project is approved, most environmental effects can feasibly
16 be avoided or mitigated and will be avoided or mitigated by the imposition of mitigation
17 measures included with the FEIR. Pursuant to Public Resources Code Section 21081.6,
18 the City Council has reviewed and hereby adopts the Mitigation Monitoring and Reporting
19 Program ("MMRP") as shown on the attached Exhibit "B", which document is incorporated
20 herein by reference as though set forth in full, word for word, together with any adopted
21 corrections or modifications thereto, and further finds that the mitigation measures
22 identified in the FEIR are feasible, and specifically makes each mitigation measure a
23 condition of project approval.

24 Section 6. Pursuant to State CEQA Guidelines section 15091(e), the
25 record of proceedings relating to this matter has been made available to the public at,
26 among other places, the Department of Development Services, 333 West Ocean
27 Boulevard, 5th Floor, Long Beach, California, and is, and has been, available for review
28 during normal business hours.

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1 Section 7. The information provided in the various staff reports submitted
2 with the Project, the corrections and modifications to the DEIR, and FEIR made in
3 response to comments and any errata which were not previously re-circulated, and the
4 evidence presented in written and oral testimony at the public hearing, do not represent
5 significant new information so as to require re-circulation of the DEIR pursuant to the
6 Public Resources Code.

7 Section 8. The City Council hereby selects Alternative 5, the "Relocated
8 Pipeline Alternative" as the environmentally superior alternative, and denies the appeals of
9 Ann Cantrell representing Citizens About Responsible Planning and Anna Christensen/
10 Charles Moore representing Protect the Long Beach/Los Cerritos Wetlands.

11 Section 9. The City Clerk shall certify to the passage of this ordinance by
12 the City Council and cause it to be posted in three (3) conspicuous places in the City of
13 Long Beach, and it shall take effect on the thirty-first (31st) day after it is approved by the
14 Mayor.

15 I hereby certify that the foregoing ordinance was adopted by the City Council
16 of the City of Long Beach at its meeting of _____ 20____, by the following
17 vote:

18
19 Ayes: Councilmembers: _____
20 _____
21 _____

22
23 Noes: Councilmembers: _____
24 _____

25 Absent: Councilmembers: _____
26 _____
27 _____

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LOS CERRITOS WETLANDS OIL CONSOLIDATION AND RESTORATION PROJECT

**CEQA Findings of Fact and
Statement of Overriding Considerations
State Clearinghouse #2016041083**

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City of Long Beach

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Los Cerritos Wetlands Oil Consolidation and Restoration Project Findings of Fact on the Final EIR

FINDINGS OF FACT ON THE FINAL EIR

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CHAPTER 1

Background

The California Environmental Quality Act (CEQA) requires that written findings be made by the lead agency in connection with certification of an environmental impact report (EIR) prior to approval of the project pursuant to *CEQA Guidelines* Sections 15091 and 15093 and Public Resources Code Section 21081. This document provides the findings required by CEQA and the specific reasons for considering the project acceptable even though the project has significant impacts that are infeasible to mitigate.

The lead agency is responsible for ensuring the adequacy and objectivity of the EIR. The City of Long Beach (City), as lead agency, has subjected the Draft EIR and Final EIR to the agency's own review and analysis process.

1.1 Project Summary

Beach Oil Minerals Partners (BOMP, the Applicant) proposes to consolidate their existing oil operations and implement a wetlands habitat restoration project (proposed project) that would also provide new public access opportunities to a portion of the Los Cerritos Wetlands. The proposed project would occur on four individual sites, which together comprise the project site. These sites are commonly known as the Synergy Oil Field site, the City Property site, the Pumpkin Patch site, and the Los Cerritos Wetlands Authority (LCWA) site. Existing oil operations on the Synergy Oil Field and City Property sites would be phased out over time, and new oil production facilities would be constructed and operated on the Pumpkin Patch and LCWA sites. The northern portion of the Synergy Oil Field site would be remediated, if necessary, and restored to a natural wetland area that would be operated as a wetlands mitigation bank. Oil operations on the southern portion of the Synergy Oil Field site and on the City Property site would continue for a fixed period of time of up to 40 years, but would ultimately be phased out as new operations are established on the Pumpkin Patch and LCWA sites. The proposed project also includes the construction of a new office building and storage structure on the Pumpkin Patch site to support the oil operations. Once the offices are relocated to the Pumpkin Patch site, the proposed project would relocate the existing office building on the Synergy Oil Field site to another location (also on the Synergy Oil Field site) and repurpose the existing site and surrounding area for use as a visitors center, a small parking area, and a perimeter trail to provide public access to the portion of the Los Cerritos Wetlands restored as part of this project.

1.2 Project Objectives

The following objectives have been established for the proposed project and will aid decision makers in their review of the project and the associated impacts. The objectives guide the intent and purpose of the proposed project:

- Restore historic tidal connection to a greater portion of the degraded Los Cerritos Wetlands through establishing a wetlands mitigation bank that will result in restoration and creation of a self-sustaining 78-acre restored coastal wetlands habitat, including habitat for special-status plant and animal species.
- Restore tidal salt marsh habitat and associated subtidal, intertidal, transitional, and upland habitats, taking into consideration potential sea level rise due to climate change.
- Provide public access and education opportunities through construction of a trail and interpretive facility, and future conveyance of privately owned property into public ownership through a land exchange.
- Reduce the footprint of oil production operations on both privately owned and City-owned portions of the Los Cerritos Wetlands to less than 10 acres of property with minimal habitat impacts.
- Improve the efficiency of oil production operations through the eventual phase out of early-20th-century oil production equipment and replacement with more-efficient and modern equipment and operations that will utilize the latest technology and operational advancements related to safety, energy, and production efficiency and concentrate production on a smaller footprint.
- Protect coastal dependent energy development by optimizing oil and gas production from the oil reserves within the City's jurisdiction that will help fund the costs of wetlands restoration and continue to provide a source of revenue to the City of Long Beach as well as short-term and long-term employment opportunities.
- Provide environmental clean-up of old landfills on private property proposed for oil production and wetlands protection, and contaminated soils on the oil field site.
- Assist the Los Cerritos Wetlands Authority in accomplishing its purpose "to provide for a comprehensive program of acquisition, protection, conservation, restoration, maintenance and operation and environmental enhancement of the Los Cerritos Wetlands area consistent with the goals of flood protection, habitat protection and restoration, and improved water supply, water quality, groundwater recharge, and water conservation" by providing for the eventual transfer through a land exchange of an approximately 156-acre, privately owned oil field into the Authority's ownership, the construction of a new visitors/interpretive center, and new public access trail.
- Help implement the Los Cerritos Wetlands Conceptual Restoration Plan by relocating existing oil production activities and making available the former oil field for wetlands restoration and future transfer of the property from private ownership to LCWA stewardship.
- Enhance gateway entry points to the City over existing industrial conditions and improve pedestrian walkability.
- Help achieve State-wide goal of sustainability by reducing reliance on foreign oil and inter-state natural gas pipelines by developing locally sourced and consumed resources using energy-efficient technology.
- Reduce energy use environmental impacts, efficiently use project-sourced natural gas, and increase project reliability/safety with a microgrid that integrates multiple on-site energy sources with high-efficiency controls on energy-using equipment.

1.3 Environmental Review Process

In conformance with CEQA and the *CEQA Guidelines*, the City of Long Beach conducted an extensive environmental review of the proposed project. The environmental review process has included:

- Completion of an Initial Study (IS)/Notice of Preparation (NOP) on April 28, 2016. The 30-day public review period extended from April 28, 2016, to May 27, 2016. The NOP was posted at the Los Angeles County Clerk's office on April 28, 2016. Copies of the IS were made available for public review at City Hall, located at 333 West Ocean Boulevard, 5th Floor; the Long Beach Main Library, located at 101 Pacific Avenue, and on the City's website (<http://www.lbds.info/planning/>).
- Completion of the scoping process where the City invited the public to participate in a scoping meeting held on May 11, 2016, at the Kettering Elementary School, Cafeteria Dining Room, 550 Silvera Avenue, Long Beach, CA. The notice of a public scoping meeting was included in the NOP.
- Preparation of a Draft EIR, which was made available for a 45-day public review period beginning July 24, 2017, and ending September 6, 2017. The scope of the Draft EIR was determined based on the City's Initial Study, comments received in response to the NOP, and comments received at the scoping meeting conducted by the City. Draft EIR Section 1.3.3, Scope of Analysis and Mitigation Measures, describes the issues identified for analysis in the Draft EIR. The Notice of Availability (NOA) for the Draft EIR was sent to interested persons and organizations, sent to the State Clearinghouse in Sacramento for distribution to public agencies, posted at the Long Beach Public Library at 101 Pacific Avenue, posted on the City's website (<http://www.lbds.info/planning/>), and sent to all property owners within at least 300 feet of the project site. The NOA was posted at the Los Angeles County Clerk's office on July 21, 2017. Copies of the Draft EIR were made available for public review at the following locations: the City's Planning Bureau, Development Services Department, located at 333 West Ocean Boulevard, 5th Floor; the Long Beach Public Library; and the City's website. In addition, the Notice of Completion was sent to the Office of Planning and Research pursuant to *CEQA Guidelines* Section 15085, for distribution to the responsible regional agencies on July 24, 2017, with a review period ending on September 6, 2017.
- Preparation of a Final EIR, including comments, the responses to comments on the Draft EIR, and revisions to the Draft EIR. The Final EIR was released for a 10-day agency review period prior to certification of the Final EIR.
- Public hearings on the proposed project were held, which included a Planning Commission hearing held on November 30, 2017, and two City Council Hearings held on January 16, 2018, and January 23, 2018.

1.4 Record of Proceedings

For purposes of CEQA and these Findings, the Record of Proceedings for the proposed project includes, but is not limited to, the following documents and other evidence:

- The NOP, the NOA, and all other public notices issued by the City in conjunction with the proposed Project.
- The Draft EIR and Final EIR for the proposed project.
- All written comments submitted by agencies or members of the public during the public review comment period on the Draft EIR.
- All responses to written comments submitted by agencies or members of the public during the public review comment period on the Draft EIR.

- All written and verbal public testimony presented during a noticed public hearing for the proposed project.
- The Mitigation Monitoring and Reporting Program.
- The reports and technical memoranda included or referenced in the Draft EIR and Final EIR.
- All documents, studies, EIRs, or other materials incorporated by reference in the Draft EIR and Final EIR.
- The Resolutions adopted by the Planning Commission and City Council in connection with the proposed project, and all documents incorporated by reference therein, including comments received after the close of the comment period and responses thereto.
- Matters of common knowledge to the City, including but not limited to federal, state, and local laws and regulations.
- Any documents expressly cited in these Findings.

1.5 Custodian and Location of Records

The documents and other materials that constitute the administrative record for the City's actions related to the project are available at the City of Long Beach Development Services Department, 333 West Ocean Boulevard, Long Beach, CA 90802. The City's Development Services Department is the custodian of the administrative record for the project. Copies of these documents, which constitute the record of proceedings, are and at all relevant times have been and will be available upon request at the offices of the Development Services Department. This information is provided in compliance with Public Resources Code Section 21081.6(a)(2) and Guidelines Section 15091(e).

CHAPTER 2

Findings and Facts

The City of Long Beach, as lead agency, is required under CEQA to make written findings concerning each alternative and each significant environmental impact identified in the Draft EIR and Final EIR.

Specifically, regarding findings, *CEQA Guidelines* Section 15091 provides:

- (a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:
 1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
 2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. 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 Final EIR.
- (b) The findings required by subsection (a) shall be supported by substantial evidence in the record.
- (c) The finding in subdivision (a)(2) shall not be made if the agency making the finding has concurrent jurisdiction with another agency to deal with identified feasible mitigation measures or alternatives. The finding in subsection (a)(3) shall describe the specific reasons for rejecting identified mitigation measures and project alternatives.
- (d) When making the findings required in subdivision (a)(1), the agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects. These measures must be fully enforceable through permit conditions, agreements, or other measures.
- (e) The public agency shall specify the location and custodian of the documents or other material which constitute the record of the proceedings upon which its decision is based.
- (f) A statement made pursuant to Section 15093 does not substitute for the findings required by this section.

The "changes or alterations" referred to in Section 15091(a)(1) may include a wide variety of measures or actions as set forth in Guidelines Section 15370, including:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensating for the impact by replacing or providing substitute resources or environments.

2.1 Format

This section summarizes the significant environmental impacts of the project, describes how these impacts are to be mitigated, and discusses various alternatives to the proposed project, which were developed in an effort to reduce the remaining significant environmental impacts. All impacts are considered potentially significant prior to mitigation unless otherwise stated in the findings.

This remainder of this section is divided into the following subsections:

- **Section 2.2, Summary of Environmental Impacts**, presents the summary of impacts of the proposed project.
- **Section 2.3, Findings on Impacts Determined to Be Less Than Significant**, presents the impacts of the proposed project that were determined in the Draft EIR to be less than significant without the addition of mitigation measures and presents the rationales for these determinations.
- **Section 2.4, Findings on Impacts Mitigated to Less Than Significant**, presents significant impacts of the proposed project that were identified in the Final EIR, the mitigation measures identified in the Mitigation Monitoring Program, and the rationales for the findings.
- **Section 2.5, Findings on Significant Unavoidable Impacts**, presents significant impacts of the proposed project that were identified in the Final EIR, the mitigation measures identified in the Mitigation Monitoring Program, the findings for significant impacts, and the rationales for the findings.
- **Section 2.6, Findings on Project Alternatives**, presents alternatives to the Project and evaluates them in relation to the findings set forth in *CEQA Guidelines* Section 15091(a)(3), which allows a public agency to approve a project that would result in one or more significant environmental effects if the project alternatives are found to be infeasible because of specific economic, social, or other considerations.

2.2 Summary of Environmental Impacts

Based on the NOP and Draft EIR, the following is a summary of the environmental topics considered to have no impact, a less than significant impact, a less than significant impact with incorporation of mitigation measures, and a significant and unavoidable impact:

- **No Impact**
 - Hazards and hazardous materials
 - Mineral resources
 - Transportation and traffic
 - Utilities and service systems
- **Less-than-Significant Impact**
 - Hydrology and Water Quality
 - Land Use and Planning

- Mineral Resources
- Population and Employment
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- **Less-than-Significant Impact with Mitigation Incorporated**
 - Aesthetics
 - Air Quality
 - Biological Resources
 - Cultural Resources
 - Geology, Seismicity, and Soils
 - Greenhouse Gas Emissions
 - Hazards and Hazardous Materials
 - Noise
 - Public Services
 - Tribal Cultural Resources
 - Energy Consumption
- **Significant and Unavoidable Impact**
 - Air Quality (violate the air quality standard and contribute substantially to an existing or projected air quality violation for construction-related VOC and NO_x emissions; result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) during construction; result in cumulative impacts to air quality during construction).

2.3 Findings on Impacts Determined to Be Less than Significant

2.3.1 Initial Study

An Initial Study was prepared by the City of Long Beach to identify the potential significant effects of the project. The Initial Study was completed and distributed with the Notice of Preparation for the proposed Project, dated April 28, 2016. The Initial Study determined that the proposed project would not have the potential to result in significant impacts to Agriculture and Forestry Resources, as described in further detail below. All other topical areas of evaluation included in the Environmental Checklist were determined to require further assessment in the EIR.

2.3.1.1 Agriculture and Forestry Resources

The project would not convert farmland to nonfarmland uses.

The project site is located within a highly urbanized area and is currently in use as privately owned or leased oil fields. No farmland, agricultural uses, or related operations are present within the project site or surrounding areas. According to the California Department of Conservation (CDC), pursuant to Farmland Mapping and Monitoring Program (FMMP), there are no farmlands located within the vicinity of the project site (CDC 2015). Therefore, the project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. This topic was not evaluated in the EIR.

Finding

No impacts to farmland would occur, and no mitigation measures would be necessary.

The project would not conflict with zoning for agricultural uses or conflict with an existing Williamson contract.

The Williamson Act of 1965 allows local governments to enter into contract agreements with local landowners with the purpose of trying to limit specific parcels of land to agricultural or other related open space use. The project sites are not zoned for agricultural use nor is it subject to a Williamson Act Contract within the vicinity of the project site (CDC 2013). Therefore, the proposed project would not conflict with any zoning for agricultural uses or a Williamson Act Contract. This topic was not evaluated in the EIR.

Finding

No impact to existing Williamson Act contracts or agriculturally zoned land would occur, and no mitigation measures would be necessary.

The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

The project site is currently developed with facilities associated with oil extraction and located in a highly urbanized area with a zoning designation of Planned Development (PD-1) within the Southeast Community Plan Area (SEADIP). The project site is not zoned as forest land or timberland. Thus, the proposed project would not conflict with forest land or timberland zoning or result in the loss of forest land or conversion of forest land or timberland to non-forest uses. This topic was not evaluated in the EIR.

Finding

No impacts to forest zoned land or timberland zoned land would occur, and no mitigation measures would be necessary.

The project would not result in the loss of forest land or conversion of forest land to non-forest use.

See response above.

Finding

No impacts to forest land or conversion to non-forest use would occur, and no mitigation measures would be necessary.

The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

As discussed above, the project site is not expected to contain farmland, forest land, or timberland. Accordingly, the project would not result in the conversion of farmland to non-agricultural uses or forest land to non-forest uses. The project site is located in a highly urbanized area and is not adjacent to existing farmland or forest lands. This topic was not evaluated in the EIR.

Finding

No impacts to forest land or agricultural use would occur, and no mitigation measures would be necessary.

2.3.2 Draft EIR

It was determined that several potential environmental effects would not result from the proposed project or would result but would not have a significant impact on the environment, and no mitigation was determined to be necessary. This determination was made based on the findings of the Draft EIR prepared for the project. The following summary briefly describes those environmental topics that were either found not to be significant or not to be significant assuming with the implementation of existing regulations, as detailed in each respective topical section of Draft EIR Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*.

2.3.2.1 Aesthetics

Impact AES-1: The project would not have a substantial adverse effect on a scenic vista.

Scenic vistas in the area include views of the Los Cerritos Wetlands complex, Los Cerritos Channel, Steamshovel Slough, and San Gabriel River in the fore- and middle-ground with the San Gabriel Mountains rising in the background.

Construction

Synergy Oil Field Site

The proposed restoration activities on the northern portion of the Synergy Oil Field site would temporarily alter scenic vistas as seen from areas surrounding the project site. Similarly, views of the southern portion of the site would temporarily be altered during construction activities. Restoration and construction activities could partially obscure scenic vistas when viewed in close proximity to the site. In addition, views of scenic vistas from public roads surrounding the site, including PCH, 2nd Street, and Studebaker Road, could be affected by the restoration and construction activities; however, views from these roadways are from the same elevation as the project site and, thus, any restoration and construction work viewed from these roads would be seen in the foreground views and restoration and construction activities would not block or obscure broader

views of background scenic vistas, such as those of the San Gabriel Mountains. Furthermore, all restoration and construction activities on the Synergy Oil Field site would be temporary in nature and, thus, would not permanently alter a scenic vista.

City Property Site

While the City Property site is within the Los Cerritos Wetlands complex, it is currently developed with oil wells and infrastructure and contains non-native species which degrade the quality of the scenic vista in this portion of the wetlands. The proposed construction and remediation activities proposed on this site would temporarily alter the conditions on the site as viewed from areas surrounding the project site, including the bike path on the San Gabriel River and 2nd Street. Construction and remediation activities could partially obscure scenic vistas when viewed in close proximity to the site. While views of this work could potentially be seen in the foreground from the San Gabriel River and 2nd Street, construction and remediation activities would not block or obscure broader views of background scenic vistas, such as those of the San Gabriel Mountains. Furthermore, all construction and remediation activities on the City Property site would be temporary in nature and, thus, would not permanently alter a scenic vista.

Pumpkin Patch Site

The proposed construction and remediation activities proposed on this site would temporarily alter the conditions on the site as viewed from areas surrounding the project site, including the bike path on the San Gabriel River and PCH (State and County eligible scenic highway). Construction activities could partially obscure scenic vistas when viewed in close proximity to the site. Once a perimeter wall is built on the site, starting in year two, views of a majority of the construction activities would no longer be visible. The remaining views of the site would be obstructed in Year 3 when the office building and warehouse are constructed. The views looking toward the Pumpkin Patch site from the San Gabriel River Bike Trail would include views of the San Gabriel River in the foreground and the site and construction activities in the middle ground. Views of the San Gabriel River, which is considered the scenic vista, would not be obstructed. Furthermore, given that construction would occur in the middle ground, background views of the San Gabriel Mountains would remain unobstructed. Thus, views from the San Gabriel River Bike Trail of a scenic vista would not be adversely affected.

Views from PCH looking east and southeast towards the Pumpkin Patch site is currently obstructed by a chain-link fence with matting to block views of the site. In addition, the street is slightly raised over the project site and, thus, there is no view of the San Gabriel River beyond the site. Furthermore, the elevation of the San Gabriel River is below that of the Pumpkin Patch site and, as such, even if the fence were removed views of the scenic vista would be obstructed from this location. Given the already obstructed views of San Gabriel River, construction activities would not have an adverse effect on a scenic vista.

LCWA Site

Restoration and construction activities could partially obscure scenic vistas when viewed in close proximity to the site. Once a perimeter wall is built on the site, starting in year two, views of a majority of the construction activities would no longer be visible. While views of this work could potentially be seen in the foreground from the Studebaker Road and Westminster Avenue, construction and remediation activities would not block or obscure broader views of background scenic vistas, such as those of the San Gabriel Mountains.

Operation

Synergy Oil Field Site

During operation, the northern portion of the Synergy Oil Field site would be permanently restored to its natural wetland state and invasive species would be removed. There would be a permanent berm on the south side of Steamshovel Slough and the visitors center would be permanently relocated southwest of its current location and raised. Overall, once restoration and removal and/or abandonment of the oil production facilities are complete, the site would return to a more natural state as viewed from the surrounding areas. Thus, these activities would enhance the scenic vista of the Los Cerritos Wetlands. The Bixby Ranch Field Office structure, which would become the visitors center, would be visible from 2nd Street. As a CEQA historic resource, it is considered a valued landscape feature and, thus, would enhance the existing Los Cerritos Wetlands complex scenic vista. Given the enhanced features that would improve the Synergy Oil Field site, the proposed project's impact on the scenic vista of the Los Cerritos Wetlands would be beneficial.

City Property Site

After construction is complete, there would be an aboveground pipeline corridor with an 18-inch-high protective berm traversing the site between the Pumpkin Patch and LCWA sites. Upon completion of well removal and/or abandonment, areas in which wells were located would be remediated. No further operational activities would take place on the site besides pipeline maintenance and inspection. Given that the pipeline would be within an 18-inch-high berm, views from the San Gabriel River Bike Trail to the south and 2nd Street to the north would remain relatively unchanged from existing conditions. In addition, scenic vista views, including background views of the San Gabriel Mountains and foreground views of the San Gabriel River would not be altered.

Pumpkin Patch Site

During operation, the LCWA site would have a fully operational oil production facility, an 18-foot-high screen wall surrounding the site along Studebaker Road, PCH, and the San Gabriel River, a 10-foot-high wall along the eastern boundary of the site along the 100-foot buffer separating the oil operations area from the wetland habitat area, landscaping buffering the screen wall from the street, an entry monument at the corner of the site at PCH to enhance the entry into Long Beach, a 160-foot-high drilling rig, and a 120-foot-high workover rig. Views of the San Gabriel River, which is considered a scenic vista, would not be obstructed from the San Gabriel River Bike Trail. Views from PCH looking east and southeast towards the Pumpkin Patch site are currently obstructed by a chain-link fence with matting to block views of the site. Thus, there is no view of the San Gabriel River beyond the site. Views from PCH would be of the project's landscaping in the foreground, office building in the middle ground, and 18-foot-high screen wall in the background. The drilling rig would move from well location to well location and would not be a permanent fixture. The workover rig would be brought on site on a temporary basis in the future when workover of the oil wells is required; however, as described above, the elevation of the San Gabriel River is below that of the Pumpkin Patch site and, as such, views of the scenic vista are permanently obstructed from this location under existing conditions. Given the already obstructed views of San Gabriel River, operational activities would not have an adverse effect on a scenic vista.

LCWA Site

During operation, the LCWA site would have a fully operational oil production facility, a 160-foot-high drilling rig, a 120-foot-high workover rig, 10-foot high screen wall surrounding the site, and landscaping buffering the screen wall from the street. The drilling rig would move from well location to well location and would not be a permanent fixture. The workover rig would be brought on site on a temporary basis in the future. As described above, the LCWA site is not considered a scenic vista; however, distant views of the San Gabriel Mountains can be viewed from the roadways surrounding the project site. The facilities on the LCWA site would not block background views of the San Gabriel Mountains.

Finding

Impacts on scenic vistas during construction and operation of the project would be less than significant, and no mitigation measures would be necessary.

Impact AES-2: The project would not substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

PCH has been identified by Caltrans as an “Eligible State Scenic Highway,” but has not been designated as an Official State or County Scenic Highway (Caltrans 2016). Both the Synergy Oil Field and Pumpkin Patch sites are visible from PCH; however, given the disturbed and undeveloped nature of the Pumpkin Patch site, there are no scenic resources on the site. Scenic resources on the Synergy Oil Field site include the Bixby Ranch Field Office (visitors center), Steamshovel Slough, and the remaining wetland areas north of the slough. None of these scenic resources on the site is visible from PCH, nor would any of these scenic resources be damaged as a result of the proposed project. Furthermore, construction and operation of the proposed project would remove non-native invasive plant species and oil production facilities, which would enhance the scenic value of the project site.

Finding

Project-related impacts on scenic resources would be less than significant, and no mitigation measures would be necessary.

2.3.2.2 Air Quality

Impact AQ-1: The project would not conflict with or obstruct implementation of the applicable air quality plan.

CEQA Guidelines Section 15125 requires an air quality assessment to discuss any inconsistencies between the proposed project and applicable General Plans and regional plans. Regional plans that apply to the proposed project include the Southern California Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP).

A proposed project would be considered consistent with the plan if it furthers one or more policies and does not obstruct other policies. The *CEQA Air Quality Handbook* identifies two key indicators of consistency (SCAQMD 1993):

1. Whether the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
2. Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1: Increase in the Frequency or Severity of Existing Air Quality Violations

Based on the air quality modeling analysis contained in this report, with mitigation the project construction would not result in exceedances of the SCAQMD localized significance thresholds (LSTs); therefore, local concentrations of NO_x would not exceed the ambient air quality standards. Therefore, short-term construction activities would not increase the frequency or severity of existing air quality violations.

The proposed project operation would increase regional emissions, but the increase would be less than the SCAQMD regional thresholds except for NO_x. The operational LST analysis indicates that operation of the project would not result in exceedances of the SCAQMD LSTs; therefore, local concentrations of NO_x would not exceed the ambient air quality standards, and local air quality impacts would be less than significant. Because the project is not projected to impact the local air quality, the project is found to be consistent with the AQMP for the first criterion.

Additionally, the project is proposing to use an energy-efficient microgrid system which would provide the energy needed for the drilling rigs and supporting equipment, pumps, two electric vehicle charging stations, and other equipment.

Criterion 2: Exceedance of Assumptions in the AQMP

Consistency with the AQMP assumptions is determined by performing an analysis of the project with the assumptions in the AQMP. The AQMP assumptions are based upon projections from local general plans. Projects that are consistent with the local general plan are consistent with the AQMP assumptions. The emission projections for the project show that the project would not impact local air quality significantly in excess of the ambient air quality standards.

Additionally, the project would comply with any new requirements specified in the 2016 AQMP. The project would result in the replacement of old facilities that tend to leak VOC at flanges, valves, pumps, and other equipment with newer equipment that would essentially eliminate these leaks. The proposed project would be consistent with Measure CMB-03 of the AQMP which calls out for replacing flares with turbines or other equipment that make use of any natural gas generated. Therefore, the project in terms of its design and operation appear to be consistent with the control measures contained in the 2016 AQMP.

Finding

The proposed project would be consistent with the SCAQMD AQMP and, therefore, impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.3 Biological Resources

Impact BIO-5: The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

There are no wildlife movement corridors within or adjacent to the project site. Terrestrial wildlife movement within the project site is primarily localized due to the surrounding development, including adjacent roadways. The Alamitos Bay and Los Cerritos Channel could provide limited movement for marine fish, mammals, or reptiles species (i.e., green sea turtle) to move into and out of the project site via Steamshovel Slough; however, Steamshovel Slough lacks an outlet and does not have connectivity to other water bodies allowing it to provide a movement corridor for marine animals to move through the project site. Further, Steamshovel Slough would be avoided during construction activities and no in-water work would occur.

Finding

Implementation of the proposed Project would not interfere substantially with the movement of any fish or wildlife species, or with established wildlife corridors, or impede the use of native wildlife nursery sites, and therefore, impacts would be less than significant, and no mitigation measures would be necessary.

Impact BIO-6: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The following discussion provides an evaluation of the project's consistency with applicable plans and policies that have been adopted for the purpose of protecting biological resources.

Tree Protection

Potential impacts to street trees protected by the City of Long Beach's Tree Maintenance Policy could include tree removal or trimming. Tree removal would result in a permanent impact, while trimming would be considered a temporary impact. A permit from the City of Long Beach Department of Public Works would be required prior to the removal of any street trees. Trees that are removed must be replaced with an approved 15-gallon tree to be planted in an appropriate area. Therefore, the project would be consistent with tree protection policies.

Potential ESHA Pursuant to California Coastal Act

The proposed project is a restoration project whose implementation would require work in potential environmentally sensitive area (ESHA). As such, there is no other way to accomplish the project purpose without impacting potential ESHA. Pursuant to California Coastal Act (CCA) Section 30240, impacts to ESHA are generally limited to activities such as habitat restoration as noted by the Coastal Commission Staff (CCC as cited in Glen Lukos Associates (GLA) 2017d):

The Coastal Act establishes a high standard for protection of areas that are identified as environmentally sensitive. Only resource-dependent uses, such as habitat restoration, are allowed within an environmentally sensitive area (ESHA). Final determinations regarding ESHA will be made by the CCC.

Synergy Oil Field Site

There are 14 wildlife species and associated habitats that are potential ESHA on the Synergy Oil Field site: American peregrine falcon, Belding's Savannah Sparrow, California least tern, Pacific green sea turtle, California brown pelican, Western snowy plover, white-tailed kite [nesting only], mudflat tiger beetle, salt marsh wandering skipper, sandy beach tiger beetle, senile tiger beetle, Western beach tiger beetle, western tidal-flat tiger beetle, and northern harrier [nesting only]. Of these, 4 would not be affected by project grading (Pacific green sea turtle, sandy beach tiger beetle, senile tiger beetle, western tidal-flat tiger beetle) and 2 are associated with habitat present on the site that does not have potential for nesting (foraging white-tailed kite and northern harrier). Project grading would have minimal impact to habitat associated with the remaining 8 wildlife species and would be necessary to establish expanded tidal areas as a component of the wetland reestablishment and rehabilitation aspect of the project. As habitat restoration could be considered a use dependent on those resources, as set forth in CCA Section 30240, temporary impacts could be determined to be consistent with the CCA. Following the completion of grading, the potential habitat areas would be expanded for the 8 wildlife species due to the addition of tidal channels, salt marsh, and mudflats.

There are three special-status plants that are potential ESHA: southern tarplant, estuary seablite, and woolly seablite. Woolly seablite would not be affected by project grading. Project grading would have minimal impact to habitat associated with the southern tarplant and estuary seablite, and is necessary to establish expanded tidal connection associated with the wetland reestablishment, therefore the impacts could be allowed under the CCA. It is also important to note that estuary seablite is included in the plant palette and there will be a substantial net increase in this species with the wetland reestablishment program.

City Property Site

Special-Status Wildlife. The City Property site does not support habitat for wildlife species that are potential ESHA and as such there would be no potential impacts to ESHA.

Special-Status Plants. Limited areas of the City Property site support a scattered small population of southern tarplant that occurs within areas of native alkali meadow, mulefat scrub and coastal brackish marsh, which could potentially be considered ESHA. Other areas occupied by the southern tarplant occur in highly disturbed areas or are limited in number and would likely not be considered ESHA. No potential impacts to ESHA would occur.

Sensitive Natural Communities. The City Property site includes one special-status vegetation alliance, pickleweed mats, which corresponds to southern coastal saltmarsh and could be determined to be ESHA; however, the proposed pipeline that would traverse the site fully avoids this alliance. No potential impacts to ESHA would occur.

Pumpkin Patch Site

Sensitive Natural Communities. The Pumpkin Patch site includes areas of non-tidal pickleweed mats that could potentially be determined to be ESHA; however, there would be no construction or operational activities proposed for the lower area; therefore, there would be no potential impacts to ESHA.

Special-Status Wildlife. The Pumpkin Patch site does not support habitat for wildlife species that are potential ESHA and as such there would be no potential impacts to ESHA.

GLA has completed a 2-year protocol of focused surveys for listed fairy shrimp, and the surveys have identified only the common versatile fairy shrimp from a seasonal ponding feature at the northeast corner of the site. No listed fairy shrimp occur on the site. No potential impacts to ESHA would occur.

Special-Status Plants. The Pumpkin Patch site does not support habitat for special-status plants that are potential ESHA and as such there would be no potential impacts to ESHA. Similarly, there are no special-status vegetation alliances on the Pumpkin Patch site that exhibit potential for ESHA that would be affected by the project; therefore, no potential impacts to ESHA would occur.

LCWA Site

The LCWA site does not contain any habitats capable of supporting special-status plants or animals and does not support native vegetation alliances with a Rarity Ranking of S3 or lower; therefore, the site does not contain any areas that could potentially be considered ESHA.

Finding

The project would be consistent with the City of Long Beach's Tree Maintenance Policy and the California Coastal Act policies related to ESHA; therefore, impacts would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative impacts during project construction and project operation were analyzed in the Draft EIR. During project construction, two cumulative projects were identified that could potentially contribute cumulative impacts: the Ballona Wetlands Restoration Project and single-family homes and hotel rooms proposed at 1st Street and Marina Drive in Seal Beach. The construction-related impacts of both of these projects would be temporary in nature and would be mitigated to less than significant or avoided by design; therefore, the cumulative impacts during construction would not be cumulatively considerable (less than significant). During project operations, the nearby cumulative projects identified included the Ballona Wetland Restoration Project and the Bolsa Chica Lowlands Restoration Project. Each project would be required to comply with federal, state, and local regulations pertaining to the protection of biological resources. Additionally, these two projects and the proposed project would have an overall net benefit upon coastal wetlands and sensitive biological resources and, therefore, cumulative impacts during project operation would not be cumulatively considerable (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.4 Geology and Soils

Impact GEO-1: The project would not expose people or structures to potential substantial adverse effects as a result of rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

The Newport-Inglewood Fault Zone is designated by the State as an Alquist-Priolo Earthquake Fault Zone (i.e., on a state-recognized active fault trace) that crosses the Synergy Oil Field and City Property sites, as

shown in Draft EIR Figure 3.5-2. In the event of an earthquake along the Newport-Inglewood Fault Zone, fault rupture could occur on these two sites. The Newport-Inglewood Fault Zone passes near but not through the Pumpkin Patch and LCWA sites.

Construction

Synergy Oil Field Site

Proposed Synergy Oil Field site construction activities within the fault zone include the relocation of the existing building (to be repurposed as a visitors center) to the southwest corner of the Synergy Oil Field site outside of the fault zone by approximately 1,000 feet which would reduce the risk of fault rupture damaging the building or injuring people. Ninety-five percent of aboveground pipelines and all storage tanks would be removed from the Synergy Oil Field site during the first phase of the project, with the remaining infrastructure removed later as wells are removed. Oil wells and associated infrastructure would be removed if the oil production in each well decreases to less than one full barrel of oil per day for a period of 18 consecutive months or within 40 years from the New Occupancy Date. The habitat restoration construction activities would not alter the seismic environment or increase the risk of fault rupture.

City Property Site

Similar to the Synergy Oil Field Site, the proposed construction activities on the City Property site would involve the removal of existing oil production wells and associated infrastructure if the oil production in each well decreases to less than one full barrel of oil per day for a period of 18 consecutive months or within 40 years from the New Occupancy Date. Two to three of the wells on the City Property site are located within the Alquist-Priolo fault zone (Newport-Inglewood Fault) and would be plugged and abandoned at some time in the future, which would reduce the risk of damage to an operating oil well. An oil pipeline system and utility corridor would be constructed to transport oil from the Pumpkin Patch site, through the City Property site, to the LCWA. The likelihood of a fault rupture occurring during construction would be relatively low with minimal risk of injury or property damage because the pipeline would be constructed over a relatively short period of time and does not include habitable structures (workers would not be on site for extended time periods and within or near tall structures that could collapse or shed debris during a seismic event).

Pumpkin Patch and LCWA Sites

The Pumpkin Patch and LCWA sites are not located within the Newport-Inglewood Fault Zone. Therefore, although fault rupture is possible along new or unknown fault traces, the likelihood of a fault rupture occurring during construction would be relatively low with minimal risk of injury or property damage because construction would occur over a relatively short period of time and the buildings would not be occupied until after construction is complete.

Operation

Induced Fault Rupture, Seismic Event, and/or Seismic-Related Ground Failure

The older wells on the Synergy Oil Field, City Property, and Pumpkin Patch sites would be replaced with newer wells installed on the Pumpkin Patch and LCWA sites over time. Some of the oil production zones associated with the newer wells could be close to or bordered by the Newport-Inglewood Fault Zone. The removal of oil and produced water from the subsurface would reduce the volume of fluids in the oil production

zone and, if not replaced, could result in a vacancy or voids that could cause subsidence that in turn could trigger a fault rupture, seismic event, and/or seismic-related ground failure.

To prevent subsidence, produced water that has been separated from the oil or water from water source wells would be injected back into the production zone. Consistent with the California Division of Oil, Gas, and Geothermal Resources (DOGGR) regulations (see DOGGR regulations in Draft EIR Section 3.5.3), all injection wells would be equipped with an accurate, operating pressure gauge or pressure recording device and underground reservoir pressures would be closely monitored. The injection would be specifically and only back into the same oil production zone and not into underlying units; some induced seismic activity has been attributed to this practice.

Impacts Related to the Future Restoration Area on Synergy Oil Field

For the Synergy Oil Field site, there would be no above ground structures or large amounts of people located within the Newport-Inglewood Fault Zone and exposed to fault rupture. Restoration monitors would inspect the site on a routine but occasional basis. The trail would only be open to the public for specific daytime hours, thereby limiting the use and presence of persons on site. Therefore, exposure of people to fault rupture impacts on the Synergy Oil Field site during project operation would be unlikely.

Impacts Related to the Future Pipeline and Utilities across City Property Site

A pipeline system and utility corridor would be constructed to transport oil, water, natural gas, electricity and communication lines from the Pumpkin Patch site through the City Property site to the LCWA site. The proposed pipelines, electrical lines, and control cables were evaluated for potential displacement or damage in the event of a seismic event (Honegger 2016). The study identified seismic design elements to accommodate the anticipated maximum amount of displacement and minimize the damage risk from rupture. The study concluded that maximizing an aboveground pipeline configuration would enable the pipeline to accommodate a larger amount of fault offset and still operate safely. The aboveground fault crossing design would allow relative lateral displacement and relative axial displacement to be accommodated. In addition, the pipeline system would be designed to shut down in the event that a seismic event compromised the system. Implementation of the geotechnical recommendations for pipeline safety is a standard condition (required by law) required by DOGGR.

Impacts Related to the Future Structures on Pumpkin Patch and LCWA sites

As previously discussed, the Pumpkin Patch and LCWA sites are not located within the Newport-Inglewood Fault Zone. Therefore, although fault rupture is possible along new or unknown fault traces, the likelihood of a fault rupture occurring during operations would be relatively low.

Finding

Impacts related to fault rupture during construction and operation would be less than significant, and no mitigation measures would be necessary.

Impact GEO-4: The project would not expose people or structures to potential substantial adverse effects as a result of seismic-induced landslides.

The project area has a relatively flat topography. Based on a review of aerial photographs and available geotechnical reports and topographic conditions, no landslides are present on or at a location that could impact

the project site. The proposed project facilities would not alter the topography so substantially as to introduce the potential for landslides to occur on site.

Finding

No impact from seismic-induced landslides would occur, and no mitigation measures would be necessary.

Impact GEO-5: The project would not result in substantial soil erosion or the loss of topsoil.

Construction

Because the overall footprint of construction activities would exceed 1 acre, the proposed project would be required to comply with the *NPDES [National Pollutant and Discharge Elimination System] General Permit for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ) (Construction General Permit), and the Long Beach Storm Water Management Program Manual, all of which are described in Draft EIR Section 3.5.3 of the. These state and local requirements were developed to ensure that stormwater is managed and erosion is controlled on construction sites. The Construction General Permit requires preparation and implementation of a stormwater pollution prevention plan (SWPPP), which requires applications of BMPs to control runoff and runoff from construction work sites.

Although all of the four individual sites that comprise the project site are entirely within disturbed areas, the construction activities would be purposely designed to retain and restore what topsoil there is and reuse that soil to restore the ecosystem.

- Soil at the Synergy Oil Field site would be rearranged for habitat restoration. No topsoil would be exported off site unless the topsoil has been contaminated with petroleum hydrocarbons above action levels requiring off-site disposal.
- At the City Property site, some fill would be imported to build a berm to protect the aboveground pipeline and utilities that would cross the eastern portion of the site; no topsoil would be exported.
- At the Pumpkin Patch site, the buried landfill materials may be excavated and removed, requiring the import of clean fill for the excavation; no existing clean fill or topsoil would be exported. If removal of the landfill is not necessary, approximately 21,000 cubic yards of soil would be graded and approximately 19,000 cubic yards of soil would be exported off site.
- The LCWA site was previously raised by the placement of imported fill; no native topsoil is present. Therefore, there would be no impacts related to the loss of topsoil.

Operation

The proposed project would reconnect Steamshovel Slough with the marshplain to the south, which would increase the amount of water moving on the site with the tides, and could in turn cause the slough to experience some erosion; however, hydraulic modeling showed that the increased velocities in the slough due to the proposed project would not be high enough to cause wide-spread erosion, nor would they require erosion and/or bank protection (M&N 2017). After some initial channel adjustment, erosion during typical tides is expected to be minimal.

In a stable estuary, mature marshes remain in a dynamic equilibrium between erosional and depositional processes. The marsh vegetation and its root structures help hold sediments in place, so the marsh would be expected to capture sediment running onto the site, reducing erosion.

The Synergy Oil Field, Pumpkin Patch, and LCWA sites would be required to comply with the Long Beach MS4 Permit and would be integrated into the City stormwater system. In addition, all aboveground structures with the exception of new wells and areas of well removal would be required to comply with the City of Long Beach low-impact development (LID) requirements and the LID Plan prepared for the Pumpkin Patch site, LCWA site, and visitors center (Wilson Mikami 2017). The LID plan describes the BMPs that would control surface water such that erosion would not occur.

Finding

With compliance with regulations discussed above, impacts associated with soil erosion during construction and operation would be less than significant for all project components, and no mitigation measures would be necessary.

2.3.2.5 Hazards and Hazardous Materials

Impact HAZ-1: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal, or reasonable foreseeable upset and accident conditions that release hazardous materials.

Demolition and Building Relocation

The project includes the demolition and removal of all oil storage tanks and 95 percent of all pipelines. In addition, the existing Synergy office building would be relocated to the southwest corner of the site and repurposed for use as a visitor center. The following discussion analyzes anticipated hazardous materials issues:

- **Asbestos-Containing Material (ACM) and Lead-Based Paint (LBP):** The tanks, pipelines, and existing office building may contain ACM and/or LBP which, if disturbed or removed, would trigger a requirement by South Coast Air Quality Management District for ACM and/or 8 CCR 1532.1 for LBP to prepare an ACM Management Plan and/or a LBP Management Plan, and retain a state-licensed ACM and/or LBP contractor to prepare and implement the management plan(s).
- **Pipelines:** Pipelines would be removed from service, cleaned, and disposed of per DOGGR and California Department of Toxic Substances Control (DTSC) requirements, including the utilization of adequate spill containment equipment and practices.
- **Aboveground Storage Tanks:** ASTs would be removed from service, cleaned, demolished, and the material disposed of per regulatory DOGGR and DTSC requirements.
- **Petroleum Hydrocarbon Affected Soil:** Previous investigations indicate that some of the soil on the Synergy Oil Field and City Property sites around the storage tank farms and near the Steamshovel Slough have soils with elevated concentrations of diesel and gasoline range total petroleum hydrocarbon (TPH), lead, and naphthalene. Approximately 24,000 tons of impacted soils would be excavated from the HA-3 and HA-5 sample locations on the Synergy Oil Field site and hauled to a disposal facility, likely the Simi Landfill in Simi Valley, California, and 200 tons of impacted soil from the HA-9 sample location near Steamshovel Slough on the Synergy Oil Field site hauled to Waste Management at Kettleman Hills Landfill, in Kettleman City, California. Additional sampling is proposed for the City Property site to further identify areas where chemical concentrations exceed

screening levels (AEC 2017d); however, the nature of the hydrocarbon-impacted soils on the City Property site is assumed to be consistent with the contamination identified around the three sample sites on the Synergy Oil Field site. The soil on the Synergy Oil Field and City Property sites would be excavated to the lateral extent of contamination above screening levels described in Draft EIR Section 3.7.3, Regulatory Framework.

Construction

Construction activities are required to comply with numerous hazardous materials and storm water regulations designed to ensure that hazardous materials are transported, used, stored, and disposed of in a safe manner to protect worker safety, to reduce the potential for a release of construction-related fuels or other hazardous materials to affect storm water and downstream receiving water bodies, and to respond to accidental spills, if any. The numerous regulations discussed in Draft EIR Section 3.7.3 would require measures for the safe transportation, storage, handling, and disposal of hazardous materials used for construction, including appropriate containers, secondary containment to contain a potential release. The construction contractors would be required to prepare an SWPPP for construction activities according to the NPDES General Construction Permit requirements. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction and describe spill prevention measures, equipment inspections, equipment and fuel storage, and protocols for responding immediately to spills.

Well Plugging and Abandonment

The project includes the phased plugging and abandonment of 53 existing oil wells on the Synergy Oil Field, City Property, and Pumpkin Patch sites. A well is plugged in a manner that prevents fluid from migrating between underground rock layers. A well operator must also comply with regulations for plugging and abandonment of oil wells stipulated in Public Resources Code (PRC) Section 3229, Division 3, and California Department of Health Services regulations in Section 30346 of CCR Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 7.

Well Drilling and Operation

The proposed production and injection wells would be drilled using oil well drilling techniques that include multiple approaches to contain fluids, including: using drilling mud in a closed system, installing conductor casing to prevent fluids from entering shallower aquifers, and once the drilling is completed, pumping out the drilling mud and placing the cuttings and drilling mud in a storage container for off-site hauling and disposal. Non-corrosive, environmentally inert, biodegradable additives might be used to keep the borehole open, prevent corrosion, increase mud weight, and prevent mud loss. In addition, all wells would be installed in well cellars designed to contain fluids, as described in an Oil Drilling and Production Overview white paper (BOMP 2017a).

During drilling, and initially during production for a period of time after a well has been drilled, there may be time periods and within zones of the reservoir where substantial pressures are encountered. If a zone of high pressure is encountered during drilling, a pressurized release could occur. Risks associated with a drilling blowout would be associated with either a production or injection well.

Various features incorporated into the well design and the location and characteristics of the oil field reduce the risk of a well blowout. All wells would be equipped with blowout prevention equipment (BOPE), which are designed to prevent the uncontrolled flow of well bore fluids through the casing, by either containing the

flow completely or by diverting it. Requirements for casing and BOPE are stipulated in Section 3219, Division 3, of the PRC and several sections of CCR Title 14, particularly Section 1722.5. Additionally, the project will include venting to flare and non-cascading shutdown systems. Due to the long history of oil extraction from the various oil fields in Long Beach, the pressure in the reservoirs has decreased. Drilling will likely be in fault blocks that have already experienced some depletion which has resulted in decreasing the amount of pressure in the reservoir. Moreover, California reservoirs are known to not be abnormally pressured.

If none of the wells encounter a pressurized reservoir and with a functioning BOPE, potential impacts from drilling would be less than significant; however, and though very unlikely, if a pressurized reservoir were encountered, the BOPE system, and other safety measures employed during the drilling process, including operator training, will minimize the potential impacts from a well blowout scenario. Given these measures and the remote likelihood of occurrence given the characteristics of California reservoirs with decreased pressure, the potential impacts of a well blowout during drilling would be considered less than significant.

During the oil extraction process, oil, water, and natural gas are brought to the surface from the production formation. Once these components reach the surface, they are separated and processed. This project proposes to inject the produced water back in to the formation from which it came, injecting sufficient quantities of water to replace the volume of fluids extracted. Corrosion inhibitors, scale inhibitors, biocides, and/or oxygen scavengers may also be added to the water prior to injection. Water injection activities to maintain underground pressures, and serves to prevent subsidence, are heavily regulated by DOGGR, under provisions of the PRC and the federal Safe Drinking Water Act. The project's water injection wells (Class II injection wells) fall under DOGGR's Underground Injection Control (UIC) program, which is monitored and audited by the USEPA. The main features of the UIC program include permitting, inspection, enforcement, mechanical integrity testing, plugging, and abandonment oversight, data management, and public outreach. With compliance with existing regulations, and inasmuch as the injected produced water would meet Class II standards, impacts would be reduced to a less-than-significant level.

Operation

As noted above, the operation of oil production and injection wells, pipelines, and associated infrastructure is regulated by DOGGR and other federal, state, and local regulations discussed in Draft EIR Section 3.7.3:

- **Pipeline and Utility Corridor:** The project involves the operation of an approximately 2,200-foot aboveground pipeline system and utility corridor through the City Property site connecting the Pumpkin Patch site to the LCWA site. This pipeline would be subject to federal regulations (49 CFR Part 192 and 49 CFR Part 195) that mandate hydrostatic testing of new, cathodically protected pipelines prior to placing the pipeline into operation. Additionally, the connecting pipeline would be inspected in accordance with City of Long Beach Department of Transportation requirements and state and federal regulations to ensure the ongoing integrity of the pipeline. Other inspection and maintenance of the connecting pipeline may include the use of pigs, devices inserted into the pipeline, to clean and/or inspect the pipeline for damage that has affected the pipeline wall thickness or shape of the pipe. Emergency isolation valves and shutdown instrumentation would be regularly tested for set points and functionality. Installation of fiber optic lines would detect leaks and seismic accelerometers would detect seismic activity. The pipeline would be treated to decrease the potential for corrosion. An earthen berm up to approximately 18 inches high would be installed on each side of the pipeline and would be designed to contain the estimated spill volume in the unlikely event of a pipeline spill or rupture.

- **Storage Tanks:** The project includes the operation of two storage tanks on the Pumpkin Patch site and four tanks on the LCWA site (ranging from 2,000 barrel to 28,000 barrel tanks that would store oil or water). Each tank would be fixed-roof and gas-blanketed design which eliminates direct emissions from tanks by capturing tank vapors through a vapor recovery system. All tanks would be equipped with leak detection systems, overfill protection, instrumentation to monitor and control level, and instrumentation to monitor temperature and pressure, and would have pressure relief valves. The tanks would also sit in secondary containment basins designed to hold the contents of the largest tank, plus a 25-year storm event. All tanks would be designed in accordance with the API Standard for Welded Steel Tanks for Oil Storage (API-650), which is the industry standard.
- **Oil Processing Facility:** The project would be equipped with a computerized control, monitoring, and communication systems, which are generally designed to monitor and control all process equipment that would operate within the facility, and used to detect and prevent an upset or release of material. Upon detection of a process upset, the operator would have the capability to shut down the affected systems. The operator console in the new office building would be staffed 24 hours a day. The Supervisory Control and Data Acquisition (SCADA)¹ system would provide the ability to control systems operation from the Operations Building and respond to alarms that are initiated when operating conditions fall outside established parameters. Equipment would typically be provided with independent automated shutdown instrumentation as well as remote indication with both pre-alarms and shutdowns, providing redundancy in safety systems. The building would be provided with an uninterruptible power supply, a diesel emergency generator, and a gas and fire detection systems and a fire suppression system. The oil processing facilities would be subject to the Beach Oil Minerals Partners (BOMP, the Applicant) mechanical integrity requirements as well as federal regulation (29 CFR Section 1910.119), the federal OSHA process safety management of highly hazardous chemicals.
- **Microgrid and Natural Gas Turbine System:** The turbines would be self-contained in an all-steel full length enclosure which would be weatherproof, insulated, sound-attenuated, and assembled to mount on the generator base frame. The enclosure incorporates a ventilation system, dust protection system, fire and gas detection and monitoring system, and a fire suppression system. The enclosure has a positive pressure to prevent the entry of potentially hazardous external atmospheres through the enclosure seams. A differential pressure switch is provided to indicate an alarm when low pressures are detected. Fire and gas monitoring and detection are managed by a separate control system that interfaces with the main unit control system. The detection of combustible gas concentrations above established levels generates an alarm or a package shutdown, as appropriate. The detection of fire or excessive heat results in the immediate shutdown of the package and activation of the fire suppression system, using CO₂ as the extinguishing agent. All gas turbine systems would be designed in accordance with the API Standard for Gas Turbines for the Petroleum, Oil, and Gas Industry Services (API-616), which is the industry standard.
- **Odorant:** Other possible upset scenarios associated with the gas operations include release or spill of the utilized odorant. As gas is typically odorless, a sulfur based odorant (mercaptan) is added to aid in leak detection. Mercaptan is colorless gas with a distinctive putrid smell. At very high concentrations, it is highly toxic and affects the central nervous system. Its penetrating odor provides warning at dangerous concentrations. All odorant will be properly stored on site and provided in secondary containment systems.
- **General Office Building and Visitors Center:** The office building and visitors center would use small quantities of cleaning products and occasional paints, solvents, and thinners for routine

¹ SCADA is a control system that uses computers, networked data communications, and graphical user interfaces for high-level process supervisory management, along with other peripheral devices such as programmable logic controllers, discrete controllers, field sensors, and actuators to interface to the process plant.

maintenance. The Hazardous Management Business Plan (HMBP) would require the materials be stored and labeled in appropriate containers.

Finding

With compliance with existing regulations, policies and industry standards and implementation of measures identified above, the impacts would be reduced to a less-than-significant level, and no mitigation measures would be necessary.

Impact HAZ-2: The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

As discussed in Draft EIR Section 3.7.2, there are no schools located within 0.25 mile of the project site. Therefore, there would be no impacts related to hazardous materials near schools.

Finding

No impacts related to hazards or hazardous materials within 0.25 mile of an existing or planned school would occur, and no mitigation measures would be necessary.

Impact HAZ-4 The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Construction

The proposed project would not interfere with the designated agency's responsibilities and reporting in the event of an emergency because no roads would be closed. All construction activities would occur within the four individual sites. In addition, construction of the oil pipeline that would run from the LCWA site to the City Property would use horizontal drilling techniques that would not require street closures because the pipeline and associated utilities would pass beneath the adjacent roadways. Construction vehicles periodically transporting equipment and materials would use public roads but would not affect the carrying capacities of the roadways.

Operation

The project facilities would be protected by a continuously pressurized firewater loop fed by a Long Beach Water Department (LBWD) water main. The system would supply water to multiple hydrants, firewater monitors, and foam monitors located on the project site. Each fire hydrant would be equipped with a fire hose and nozzles. The local LBWD water main can provide adequate flow and pressure to the site with no additional need for firewater storage tank or pumps. The new office building would be provided with a sprinkler system in accordance with City requirements. The turbine system enclosure is equipped with a CO₂ fire suppression system. In addition to the BOPE on the wells, a foam system for fire suppression will be installed on the oil storage tanks to address the potential for fires involving these facilities.

As analyzed in Impact HAZ-1, released fluids from a pipeline rupture would remain within the containment system and not migrate off site. Emergency response or emergency evacuation plans would not likely be impacted due to pipeline spills.

In addition, the proposed project would not interfere with the designated agency responsibilities and reporting in the event of an emergency because no roads would be closed. All operation activities would occur within the four individual sites. The operation vehicles periodically transporting equipment and materials would use public roads but would not affect the carrying capacities of the roadways, as discussed in Draft EIR Section 3.15, *Transportation and Traffic*.

Finding

With implementation of adequate fire detection and suppression systems, emergency response or emergency evacuation plans would not be likely be impacted due to project-related fires; therefore, potential impacts would be less than significant, and no mitigation measures would be necessary.

Impact HAZ-5 The project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

As discussed in Draft EIR Section 3.7.2, the four individual sites are not located within very high or high fire hazard severity zone. Therefore, there would be no impact relative to wildland fires.

Finding

No impacts related to wildland fires would occur, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative impacts during project construction and project operation were analyzed in the Draft EIR. During project construction, none of the cumulative projects geographically overlap with the proposed project. Additionally, all cumulative projects would be subject to the same regulatory requirements, including the implementation of health and safety plans, soil and groundwater management plans, and ACM/LBP management plans, as needed. Cumulative projects involving the potential releases of hazardous materials also would be required to remediate their respective sites to the same established regulatory standards. This would be the case for each project regardless of the number, frequency, or size of the release(s), or the residual amount of chemicals present in the soil from previous spills. Therefore, while it is possible that the proposed project and cumulative projects could result in releases of hazardous materials at the same location and at the same time (e.g., two trucks carrying hazardous materials), the responsible party associated with each spill would be required to remediate site conditions to the same established regulatory standards. The residual less-than-significant effects of the proposed project that would remain after mitigation would not combine with the potential residual effects of cumulative projects to cause a potential significant cumulative impact because residual impacts would be highly site-specific. Accordingly, no significant cumulative impact with respect to the use of hazardous materials would result. Therefore, the proposed project would not cause or contribute to a cumulatively significant impact with respect to the use of hazardous materials during construction activities (less than significant). Although the locations of oil production wells and pipelines would change, all oil would still be piped off and the transport would not be substantially changed. Therefore, this would not result in a significant change over existing conditions. In addition, the replacement of the older wells and pipelines with newer wells, pipelines, and associated equipment would result in a decrease in the potential for spills.

Therefore, the proposed project would not cause or contribute to a cumulatively significant impact with respect to the use of hazardous materials during operations (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.6 Hydrology and Water Quality

Impact HY-1: The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality.

Construction

Construction of the proposed project facilities would involve the use of hazardous materials and ground-disturbing activities which would expose and rework soils for periods of time. If the excavation of soil releases sediment to surface waters or hazardous materials are accidentally released, these pollutants could mix with runoff on site and result in sedimentation and/or contamination of receiving water bodies such as the Los Cerritos Channel, Steamshovel Slough and associated wetlands, or the San Gabriel River. The drilling of oil wells could adversely impact the water quality of non-oil-production zones if drilling muds or oil escape the well boreholes and enter aquifers with beneficial uses other than oil production. The construction activities could damage the well seals of previously plugged and abandoned oil production wells or injection wells, which could contaminate aquifers.

- **Construction of Oil Wells:** As described above under Impact HAZ-1, the proposed production and injection wells would be drilled using oil well drilling techniques that include multiple approaches to contain fluids. Numerous regulations required by the state DOGGR would require measures for the safe transportation, storage, handling, and disposal of hazardous materials used for the drilling and construction of wells, including appropriate containers, and secondary containment to contain a potential release. In addition, conductor casing would be used to seal off non-oil-producing layers, preventing drilling mud or oil from entering aquifers.
- **Construction over the Location of Wells:** Construction activities have the potential to damage plugged wells and break the subsurface seals to aquifers. Similarly, construction activities would have the potential to damage active and idle wells, with the same potential to cross contaminate aquifers. The most northerly plugged wells on the Synergy Oil Field site would be located within the restoration area where grading activities would occur. The locations of the one active and one plugged well on the Pumpkin Patch site would not be within an area of construction. The location of the one plugged well on the LCWA site is located along Second Street and would not be within an area of construction. Seven wells on the City Property site are located near but just west of the alignment of the proposed aboveground pipeline system and utility corridor and would not be within an area of construction. Numerous regulations are required by DOGGR to manage oil field operations, including requirements that site owners track the locations of all wells in perpetuity, including previously plugged and abandoned wells, and prohibit construction activities that would damage the well seals. Construction contractors would be required to mark and avoid all well locations (active, idle, and plugged) as a condition of project approval.
- **Landfill Remediation on Pumpkin Patch:** If it is determined that removal of the landfill at the Pumpkin Patch site is required, remediation of the landfill would require the following work:
(1) removal from the site of the dry trash, which would be hauled to a landfill for disposal (see

Section 3.17, *Utilities and Service Systems*, for landfill locations and capacities), and (2) removal of “wet trash” using excavation equipment with a dredging bucket so that once the wet trash is removed, the water would be allowed to drain within the confines of the excavation. Wet trash excavation would require the placement of the wet trash on a rack or other platform in the landfill excavation pit where the trash would be allowed to dry before it is transported to a landfill. Analytical testing would be used to characterize the waste as hazardous or nonhazardous and identify the appropriate disposal location. Nonhazardous waste would be hauled to a Class II or III disposal facility and hazardous waste would be hauled to a Class I or Class II facility, likely the Kettleman Hills Landfill. It is assumed that approximately 63,000 cubic yards of waste would be exported, and approximately 45,000 cubic yards of clean dirt would be imported.

- **Construction of All Other Structures:** Because the overall footprint of construction activities would exceed 1 acre, the proposed project’s ground-disturbing activities would be required to comply with the NPDES Construction General Permit. The Construction General Permit would require the preparation and implementation of an SWPPP, which would include implementation of BMPs to control run-on and run-off from construction work sites. The BMPs would include a variety of measures that would substantially reduce or prevent erosion from occurring during construction. In addition, the project would be required to comply with the Long Beach Municipal Code for stormwater control.

Operation

Operation of the proposed project facilities would include the production of oil and produced water which could adversely impact water quality if not properly managed and/or the oil or produced water is discharged to surrounding surface water bodies. The new office buildings, landscaping, and parking areas could adversely affect surface water quality with sediment or other pollutants if surface water runoff is not properly managed. The restored northern portion of the Synergy Oil Field site would change the existing habitat and could adversely impact surface water quality via erosion if not properly maintained.

- **Oil Production at LCWA and Pumpkin Patch Sites.** The operation of oil production and injection wells, pipelines, and associated infrastructure is regulated by DOGGR as per the applicable federal, State, and local regulations. For the operation of wells, storage of oil, and transportation of the oil to refineries through pipelines, regulations include measures to routinely monitor and inspect wells, pumps, pipelines, storage tanks, and associated equipment for leaks and pressure issues. Storage tanks would be required to have secondary containment. The wells would be installed in well cellars designed to contain fluids in the event of a leak. The wells, pipelines, and storage tanks are required to have established emergency procedures in the event of a release or spill. The produced water that would be pumped out along with the oil is typically brackish to saline, but would be entirely injected back into the production zone from whence it came.
- **Restored Habitat at Synergy Oil Field Site.** Reconnection of the slough with the marshplain could cause erosion of the slough channel and adjacent areas, which could deliver sediment-laden runoff and associated constituents to Steamshovel Slough and Los Cerritos Channel. Constituents associated with these sediments could then settle out into the channel and marsh at concentrations that may adversely affect water quality. Given the low concentrations of the reported constituents (based on a sediment sample taken in 2005), the reworking of the soils in the proposed restoration area would not be anticipated to release chemical constituents at concentrations above background levels or that are not already being transported by the Los Cerritos Channel. The landfill along the eastern edge of the site is buried 25 feet deep, so any erosion at the site is not expected to reach levels that would expose this material. The natural function of the salt marsh habitat would improve water quality by capturing sediment and pollutants from upstream and upslope sources. The improved function of the marsh plants and the associated biological activity would serve to capture, filter, and naturally degrade

pollutants and would potentially be a beneficial impact. The implementation of the 5-year mitigation and monitoring program would monitor and, if needed, adjust the restoration and functioning of the salt marsh and would result in a beneficial impact.

- **Tidal Inundation.** By establishing tidal channels and connecting Steamshovel Slough to the marshplain to the south, the extent of tidal inundation would increase. This could possibly result in some localized increase in salinity within the restoration area; however, the change to water quality would not be considered to have an adverse impact on water resources because the groundwater in this area is all brackish to saline and is not used for domestic or municipal supply. The inland migration of saline groundwater, if any, would likely be limited and not extend much beyond the southern limits of the Synergy Oil Field area. While the increased inundation could cause more salt water to infiltrate to the water table, it would be infiltrating into an already brackish to saline estuarine water table that is not used for public or private supply.

All Other Project Components

The operation of the oil production system, office building, and visitors center would also use small quantities of cleaning products and occasional paints, solvents, and thinners for routine maintenance. As discussed in Section 3.7, *Hazards and Hazardous Materials*, the preparation and implementation of the Hazardous Materials Business Plan (HMBP) would require hazardous materials to be stored and labeled in appropriate containers. Compliance with existing regulations would reduce the potential for the release of chemicals that could adversely affect surface water quality.

In addition, and as described above in the Regulatory Framework, the proposed project would be required to implement various treatment, structural, and non-structural source control BMPs to reduce potential impacts to water quality from sediments and other pollutants, as recommended in the LID Plan prepared for the project. The discussion below in Impact HY-2 on impervious surfaces provides detail of the proposed BMPs in the LID plan. The installation of these BMPs would reduce impacts to water quality to a less-than-significant level.

Finally, and as described above in the Regulatory Framework, the proposed project would be required to comply with the requirements of the City of Long Beach MS4 Permit for various specific discharge categories, including landscape irrigation using potable water, landscape using reclaimed or recycled water, and street/sidewalk wash water. The MS4 Permit lists source control BMPs pertaining to pollutant-generating activities to be implemented at commercial and industrial facilities. With implementation of and compliance with the HMBP, LID Plan, and the MS4 Permit, impacts related to water quality during operation would be less than significant.

Finding

With the implementation of and compliance with the requirements noted above, impacts to water quality would be less than significant, and no mitigation measures would be necessary.

Impact HY-2: The project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the groundwater table.

Construction

Construction of the proposed project facilities would involve activities that would require the use of water, including the drilling of new oil production and produced-water injection wells, plugging of existing oil and

injection wells, the hydrostatic pressure testing of pipelines and storage tanks, and other construction activities such as concrete mixing and dust control for buildings, well cellars, and associated infrastructure. The local water supply is served by the Long Beach Water District (LBWD), which receives a mix of groundwater, imported water and recycled water. LBWD acquires its groundwater supply from the landward side of the Alamitos Barrier Project, and groundwater beneath the four individual sites is not used for potable water due to seawater intrusion. The required water would be supplied by tapping into existing LBWD water lines. Table 3.17-4, Summary of Projected Annual Water Usage, in the Draft EIR summarizes the projected water use for construction and operation activities over the next 60 years. Both construction and operations water use are listed because the activities overlap over time. The maximum combined construction and operations water use would be about 124 acre-feet from the third year through eleventh year when oil wells would be constructed at the Pumpkin Patch and LCWA sites. Water use would be less in all other years. The LBWD expects to have at least 76,983 acre-feet/year (afy) of available surplus water, which far exceeds the needs of the proposed project for any year.

Operation

Oil Wells

The extraction of oil also results in the extraction of brackish to saline water from the production zones. The proposed project would reinject the produced water back into the production zone to prevent subsidence and damage to overlying aquifers, returning the produced water to the depth levels from which it was extracted.

The processes of separating the oil from the produced water, as well as other operational activities, would require water supply; however, as previously discussed, the LBWD expects to have at least 76,983 afy of available surplus water, which far exceeds the needs of the proposed project for any of the next 60 years. In addition, groundwater beneath the four individual sites has been intruded by seawater for some years and consequently is not used for potable water.

All Other Non-Oil Wells Structures

Operation of the proposed project would require water supply for various other uses, including irrigation of the restoration areas on the Synergy Oil Field site and operation of the office building and visitors center. Water would be provided by the LBWD, which receives some of its water from groundwater; however, as previously discussed, the LBWD expects to have at least 76,983 afy of available surplus water, which far exceeds the needs of the proposed project for any of the next 60 years. In addition, groundwater beneath the four individual sites has been intruded by seawater for some years and consequently is not used for potable water.

Impervious Surfaces

The Synergy Oil Field site would have no net change in impervious area. The drainage would be conveyed to seven proposed bioretention basins designed for the 85th percentile 24-hour storm volume and located around the visitors center. Therefore, all of the rainfall that currently falls on the site will still continue to infiltrate back into the subsurface after supporting some landscaping. In addition, the Synergy Oil Field site would experience an overall net reduction in impervious surfaces following the eventual removal of its oil production infrastructure that consists of oil and injection wells, wells pads, storage tanks, processing equipment, and access roads. No other impervious structures would be constructed on the Synergy Oil Field site.

The City Property site would experience an overall reduction in impervious surfaces following the plugging and abandonment of wells and eventual removal of its oil production infrastructure. The addition of the oil pipeline and utility lines that would cross the City Property site would not increase impervious surfaces because the lines would be protected by earthen berms with no surrounding pavement. Rain would flow around the lines and infiltrate into the subsurface similar to existing conditions. No other impervious structures would be constructed on the City Property site.

The Pumpkin Patch site would experience an increase of about 196,244 square feet (sf) (4.5 acres) of impervious surfaces the LCWA site would experience an increase of about 121,314 sf (2.8 acres) of impervious surfaces (Wilson Mikami 2017a). Drainage on the Pumpkin Patch and LCWA sites currently flows north to Studebaker Road. Under the proposed project and in accordance with the LID Plan, drainage would be conveyed through proposed swales, gutters, and storm drains to the well cellars designed to contain a 25-year storm event. Larger storm flows would overflow from the well cellars to Studebaker Street, as is the current condition. Water collected in the well cellars would be conveyed to the on-site water treatment system and injected into the subsurface oil production zones, along with the produced water. Therefore, all of the rainfall that currently falls on the Pumpkin Patch site would be injected into the subsurface, recharging the volume of water in the oil production zones.

Finding

Project-related impacts to groundwater would be less than significant, and no mitigation measures would be necessary.

Impact HY-3: The project would not substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion, siltation or flooding off site.

Construction

Construction of the proposed project would involve the demolition of existing structures and the construction of new structures on the project site, construction of earthen berms, establishment of tidal channels, removal of existing berms and roads, and lowering elevations on the Synergy Oil Field site and would thereby alter the existing drainage patterns on site such that erosion, siltation, and flooding could occur.

The proposed project would be required to implement erosion and sediment control BMPs as specified in the SWPPP prepared in accordance with the Construction General Permit. This would prevent erosion and siltation from occurring during construction activities for both oil facilities and habitat restoration. Some of the BMPs implemented to reduce erosion and siltation would impede or slow the speed of stormwater runoff flow, and would reduce the potential for flooding to occur. Further, flooding in the Synergy Oil Field site near the restored areas is anticipated since it is naturally flooded by tidal channels; flooding would not be viewed as a negative impact during construction.

Operation

Operation of the proposed project would involve altered drainage patterns for the Synergy Oil Field, Pumpkin Patch, and LCWA sites; the drainage pattern for the City Property site would remain essentially unchanged. Per the recommendations of the project LID Plan (Wilson Mikami 2017a), water quality BMPs would be

installed on all sites except the City Property site. Through the retention and infiltration of stormwater runoff, stormwater flow rates would be controlled to be equal or less than the pre-developed condition.

While some erosion of Steamshovel Slough is expected initially, the natural function and increased footprint of the marsh habitat would increase the capture of sediment in the long term, which would be a beneficial impact. With implementation of the 5-year mitigation and monitoring program established for the mitigation bank, the restoration and functioning of the salt marsh would be a beneficial impact.

The proposed restoration activities on the northern 76.52-acre Synergy Oil Field site would expand tidal connection, so that areas south of Steamshovel Slough that currently lack tidal connection would receive tidal flows. Although expanded tidal connections would increase flooding in these areas, increased flooding is the goal of the proposed restoration to recreate natural flooding conditions, and flooding would not be viewed as a negative impact.

As described in Draft EIR Section 3.8.4.2, Methodology, hydraulic modeling evaluated any changes to flood water elevations that would result due to the proposed project (Moffatt & Nichol 2017). Modeling was conducted for both existing and project conditions. The existing conditions model results indicate that both storm and tidal waters coming from Steamshovel Slough would be contained within the Synergy site without overtopping surrounding streets. Model results showed that for the proposed project condition, water levels would be the same as under existing conditions and both storm and tide water would be contained within the Phase 1 property boundary, due to flood protection provided by the proposed berm along the Phase 1 boundary. The proposed berm would have an elevation of 9.0 feet NGVD29², providing approximately 3.4 feet of freeboard above the 100-year coastal flood event (1 percent annual change of occurrence) water level. This would add 2 to 3.6 feet of freeboard when compared to existing conditions. Since freeboard would increase with the project, this would be a beneficial impact.

Sea level rise is projected to occur worldwide in the mid- to long-term future (Moffatt & Nichol 2017). Based on the measured highest anticipated tidal elevation, the 100-year flood elevation, and 2.6 feet of sea level rise in year 2060 (consistent with the 2015 California Coastal Commission guidance), the projected flood elevation would be modeled at 8.18 feet NAVD29, hence the conclusion to design the interim berm separating the two project phases at 9.0 feet NGVD29. Without the proposed project and the interim berm, an 8.18-foot water level would overtop both the Pacific Coast Highway and 2nd Street. Therefore, the proposed project with the proposed interim berm would improve the flood protection in the area and provide a beneficial impact.

Finding

Project-related impacts on erosion, siltation, and flooding would be less than significant, and no mitigation measures would be necessary.

² National Geodetic Vertical Datum of 1929 (NGVD29) is one of several datums used for measuring elevation relative to sea level.

Impact HY-4: The project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Construction

Runoff water would be controlled in compliance with the Construction General Permit and the BMPs identified in the required SWPPP. Therefore, construction is not expected to generate an amount of runoff that would exceed storm water drainage system capacity.

Operation

Once operational, runoff flow rates would be equal or less than the pre-developed flow rate condition. All new storm drain facilities on site would provide capacity for a 25-year storm event. Therefore, the proposed project would not generate substantial stormwater runoff such that existing or planned drainage system capacities are exceeded.

Finding

Project-related impacts to the capacity of existing or planned stormwater drainage systems would be less than significant, and no mitigation measures would be necessary.

Impact HY-5: The project would not place buildings, oil production infrastructure, workers, or the public within areas anticipated to be inundated due to sea level rise.

Construction

During construction, there would be no impacts due to sea level rise because of the short-term nature of the construction work. Sea level rise is not anticipated occur over the 4-year construction period (when a majority of the construction work is being implemented). This impact would be less than significant.

Operation

The proposed restoration activities on the northern portion of the Synergy Oil Field site would expand tidal connection so that areas south of Steamshovel Slough that currently lack tidal connection would receive tidal flows. Increasing the tidal connections would increase flooding in these areas, and could increase the risk of flooding with sea level rise.

Hydraulic modeling evaluated flood levels in the marsh with sea level rise. Modeling was conducted for both existing and proposed project conditions. Model results showed that water levels would be the same (6.9 feet NGVD29) for the proposed project condition and existing conditions with 2.6 feet of sea level rise (Moffat & Nichol 2016). The existing conditions modeling showed that the west bound lanes of 2nd Street just east of the PCH may be inundated if sea level rise is more than 2.6 feet; however, the proposed project would increase flood protection from existing conditions through construction of the proposed berm. The berm was designed to consider sea level rise, so during the 100-year coastal flooding event with 2.6 feet of sea level rise, the berm would still maintain 0.82 feet of freeboard. Since freeboard would increase with the project, this would be a beneficial impact.

Finding

Project-related impacts from potential inundation due to sea level rise would be less than significant, and no mitigation measures would be necessary.

Impact HY-6: **The project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.**

Construction

The project proposes to reconnect Steamshovel Slough to the surrounding marshplain by removing the existing berms, which could result in increased flooding within that local area; however, the proposed project would construct permanent sheet pile walls and an earthen berm along the perimeter of the southern edge of the restoration area to prevent tidal water spillover into the southern portion of the site that currently contains active oil operations. Additionally, the four individual sites are not in a dam inundation area. Therefore, people and structures would not be exposed to substantial flooding during project construction.

Operation

The proposed project would increase public access to the Synergy Oil Field site and construct buildings, oil production operations, and associated infrastructure on the Pumpkin Patch and LCWA sites, which could increase the exposure of people and structures to flooding during operation in the event of a levee or dam failure.

Reconnection of Steamshovel Slough to the surrounding marshplain on the Synergy Oil Field site would increase flooding potential on site and could increase flood risk to the surrounding areas; however, the goal of the berm removal is to allow for expansion of tidal influence in the northern 77.3-acre area to convert non-tidal areas to tidal wetlands; therefore, flooding of the tidal wetlands is expected and necessary, and would provide additional areas to contain flood waters. Further, the proposed sheet pile wall and earthen berm along the southern perimeter of the Steamshovel Slough would reduce the flood risk to the southern portion of the site, which would contain the visitors center. The proposed berm would actually increase the level of flood protection from existing conditions, resulting in a beneficial impact.

The new buildings, oil production operations, and associated infrastructure on the Pumpkin Patch and LCWA sites would result in the increased presence of people on those two sites. The LCWA site is not adjacent or near a levee and would have a low potential for flooding due to a distant levee failure. The Pumpkin Patch site is immediately adjacent to the San Gabriel River and would be dependent on the levees along the San Gabriel River for flood protection. Since the project does not propose to change these levees, the proposed project would not change the flood risk to the area. Additionally, roughly half the Pumpkin Patch site is at elevations equal to or greater than the levee elevation. The remaining areas of the site are above 13.5 feet NGVD, which is 5.3 feet higher than the 100-year coastal flood event with 2.6 feet of sea level rise, so flooding at this elevation would be extremely rare. Therefore, people and structures would not be exposed to substantial flooding during project operation.

Finding

Project-related impacts from the potential to expose people or structures to seiches, tsunamis, or mudflow would be less than significant, and no mitigation measures would be necessary.

Impact HY-7: The project would not expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

Construction

The proposed project is not located in an area that could be exposed to mudflows because the four individual sites are all relatively flat. By connecting Steamshovel Slough to the marshplain to the south, the proposed project would be creating a large basin that could potentially experience a seiche and overtop the berm to cause flooding; however, for a seiche to occur, the site would have to be filled with water, which would only occur during a large, infrequent storm event (e.g., 100-year event). It would be extremely unlikely that a large storm event would occur at the same time as a large earthquake induces a seiche. Additionally, the proposed project includes a berm that has 3.4 feet of freeboard during the 100-year event, so it is unlikely that a seiche would be large enough to overtop the berm and cause flooding.

The entire project area is located within a tsunami inundation area; therefore, existing and partially constructed structures and construction workers could be exposed to tsunamis during project construction; however, the County of Los Angeles is in the process of becoming “tsunami ready,” meaning it would implement mitigative, preparatory, and response measures to avoid or lessen substantial impacts to structures and persons associated with tsunami events, including 24-hour notice and evacuation route signs. Further, PCH is located adjacent to the project site and is considered a disaster route used to bring in emergency personnel and supplies to aid in the event of a disaster, which includes tsunamis. Construction activities would not alter the topography of the site so substantially that tsunami risks would be increased when compared to existing conditions.

Operation

As stated previously, the entire project site is located in a tsunami inundation zone. Over a 40-year period, the oil production operations on the Synergy Oil Field and City Property sites would be removed and replaced with oil production operations on the Pumpkin Patch and LCWA sites, with about the same number of workers. Therefore, the project would not increase the number of workers being exposed to risk of a tsunami.

As previously discussed, the County of Los Angeles is working on becoming a TsunamiReady community that would implement measures to avoid or lessen potential tsunami impacts to structures and persons. The Pacific Coast Highway could be used to bring in emergency personnel and supplies to the project site in the event of a tsunami. Further, the project would restore the northern portion of the Synergy Oil Field site to wetland habitat. Wetlands provide protection from tsunamis and tidal surges and would thus help mitigate potential damage from a tsunami on the Synergy Site and adjacent areas.

Finding

Project-related impacts would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative impacts during project construction and project operation were analyzed. The regulations required by DOGGR on all projects would require measures for the safe transportation, storage, handling, and disposal of hazardous materials used for the drilling and construction of wells, including appropriate containers, and secondary containment to contain a potential release. In addition, conductor casing would be used to seal off non-oil-producing layers, preventing drilling mud or oil from entering aquifers, and construction activities that could damage active, idle, and plugged wells are prohibited. Because the well installation activities would be subject to the requirements noted above, impacts associated with pollutants entering surface water bodies or aquifers would be less than significant. These regulations would be required of any and all cumulative projects that drill oil wells. Therefore, with compliance with applicable regulations, the cumulative impacts would not be cumulatively considerable (less than significant).

The state Construction General Permit and the Long Beach Storm Water Management Program would require each cumulative project to prepare and implement a SWPPP. The SWPPPs would describe BMPs to control runoff and prevent erosion for each project. The Construction General Permit has been developed to address cumulative conditions arising from construction throughout the state, and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. Construction sites regardless of location would each be required to implement BMPs to reduce and control the release of sediment and/or other pollutants in any runoff leaving their respective sites, including from erosion. The runoff water from both sites would be required to achieve the same action levels, measured as a maximum amount of sediment or pollutant allowed per unit volume of runoff water. Thus, even if the runoff waters were to combine after leaving the sites, the sediments and/or pollutants in the combined runoff would still be at concentrations below action levels and would not be cumulatively considerable. Similarly, the impacts of the proposed project combined with other cumulative projects within the region would not cause a significant cumulative impact related to soil erosion and the proposed action's contribution to cumulative impacts on soil erosion would not be cumulatively considerable (less than significant).

The local water supply is served by the LBWD, which receives a mix of groundwater, imported water and recycled water. The LBWD expects to have at least 76,983 AFY of available surplus water. LBWD's analysis considers the anticipated growth (effectively the summation of anticipated cumulative projects) within its area of service. Therefore, with compliance with applicable regulations, the cumulative impacts would not be cumulatively considerable (less than significant).

Until the construction of structures has been completed, there would be no impacts from changed drainage patterns, the placement of structures in areas susceptible to sea level rise, levee or dam failure, seiches, tsunamis, or mudflows.

During project operations, oil production at the four individual sites and other oil production sites (e.g., the Thermo oil field located adjacent to the northwest of the Synergy Oil Field site) would all be required to comply with the same DOGGR regulations that include regulations to routinely monitor and inspect wells, pumps, pipelines, storage tanks, and associated equipment for leaks and pressure issues. Storage tanks would be required to have secondary containment. In the case of the proposed project, wells would be installed in well cellars designed to contain fluids in the event of a leak. The wells, pipelines, and storage tanks are required to have established emergency procedures in the event of a release or spill. The produced water that would be pumped out along with the oil is typically brackish to saline, but would be entirely injected back into

the production zone from where it came. Additionally, the proposed project and all cumulative projects would be required to prepare and implement HMBPs to manage any hazardous materials used by operations, including appropriate storage, labeling, and use. In addition, all facilities in the City of Long Beach would be required to comply with the Long Beach MS4 program and LID requirements that would require managing surface water on their respective facilities. Therefore, with compliance with existing regulations, impacts related to water quality from the operation of oil well fields and facility operations of the proposed project and cumulative projects would not be cumulatively considerable (less than significant).

The local water supply is served by the LBWD, which receives a mix of groundwater, imported water, and recycled water. It is assumed that the water supply for cumulative projects would also be the LBWD. The LBWD expects to have at least 76,983 AFY of available surplus water. LBWD's analysis considers the anticipated growth (effectively the summation of anticipated cumulative projects) within its area of service. All facilities in the City of Long Beach would be required to comply with the Long Beach MS4 program and LID requirements that would require managing surface water on their respective facilities. This would include minimizing the impacts of adding impervious surface. Therefore, with compliance with existing regulations, the cumulative impacts relative to groundwater supplies would not be cumulatively considerable (less than significant).

All projects within the local area are required to comply with the city's LID and MS4 regulations that would require controlling surface water runoff and reducing impacts from sediment and other pollutants. These regulations would also apply to any cumulative projects that change drainage patterns. Therefore, with compliance with existing regulations, impacts related to water quality from facility operations of the proposed project and cumulative projects would not be cumulatively considerable (less than significant).

The proposed project would be designed to account for sea level rise. Consequently, the proposed project would not cumulatively contribute to sea level rise issues with nearby cumulative projects and would not be cumulatively considerable (less than significant).

The reworking of the Synergy Site to a more natural wetland function and the improvement of berms would result in a beneficial impact. Therefore, the proposed project would not contribute to cumulative impacts (less than significant).

The proposed project area is not within an area subject to seiches or mudflows, which would also be the case for nearby cumulative projects. The project area, which would include nearby cumulative projects, is located within a tsunami inundation area and could be exposed to tsunamis; however, the County of Los Angeles is in the process of becoming TsunamiReady, meaning it would implement mitigative, preparatory, and response measures to avoid or lessen substantial impacts to structures and persons associated with tsunami events, including 24-hour notice and evacuation route signs. This program would apply to all cumulative projects within the tsunami zone. Therefore, with compliance with tsunami program, impacts related to tsunamis would not be cumulatively considerable (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.7 Land Use and Planning

Impact LU-1: The project would not physically divide an established community.

The existing character of the project vicinity is a mixture of open space/wetland areas which includes industrial facilities, (energy facilities and oil extraction facilities), and commercial retail uses along PCH and portions of 2nd Street. The proposed structures, facilities, and surrounding walls on the Pumpkin Patch and LCWA sites would be of a similar scale to that which is present on adjacent properties and, thus, would not create an obstruction that would physically divide a community. In addition, abandonment of oil production facilities on the Synergy Oil Field, City Property, and Pumpkin Patch sites over a period of 40 years would create open space and wetlands areas that would create a more natural landscape for the area on those sites, consistent with their original habitat. By removing the existing facilities and consolidating them on two much smaller sites, both the Synergy Oil Field and City Property sites would be more compatible with and similar to the overall Los Cerritos Wetlands complex.

Furthermore, street, sidewalk, and landscaping improvements on and fronting the project site would make it easier and safer for the community to access the surrounding areas. Thus, it is not anticipated that the proposed project would physically divide, disrupt, or isolate an established community.

Finding

No impacts related to division of established communities would occur, and no mitigation measures would be necessary.

Impact LU-2: The project would not conflict with most applicable land use plan, policy, or regulation of an agency with jurisdiction over the project, adopted for the purpose of avoiding or mitigating an environmental effect.

Below is an evaluation of the project's consistency with applicable plans and policies that have been adopted for the purpose of avoiding or mitigating an environmental effect. See Draft EIR Table 3.9-1, Consistency Analysis with Local Land Use Plans, for a discussion of consistency with specific applicable goals and policies that apply to the proposed project.

Consistency with the Long Beach General Plan

Synergy Oil Field and City Property Sites

The Synergy Oil Field and City Property sites are within the SEADIP; however, they are not assigned a specific land use designation under the City's General Plan. Given that there is no existing land use designation for these sites, a general discussion of consistency with the General Plan and its elements is included in Draft Table 3.9-1. Implementation of the proposed project on the Synergy Oil Field and City Property sites would not conflict with the City's General Plan.

Pumpkin Patch and LCWA Sites

The Pumpkin Patch and LCWA sites are designated as LUD No. 7, Mixed Uses under the General Plan, which allows retail, offices, medical facilities, higher density residences, visitor-serving facilities, personal and professional services, and recreational facilities (City of Long Beach 1989, 65). Under the proposed project, the Pumpkin Patch site would be developed with industrial and office uses and the LCWA site would be

developed with industrial uses. While the LUD No. 7 designation does not promote industrial uses, it also does not preclude the assignment of this district designation to areas for industrial, manufacturing, and/or warehousing uses if the site has a previous history of this use or is in an area where this use exists. The General Plan discusses the existing active oil operations on the Synergy Oil Field and City property sites (City of Long Beach 1989, 169). In these situations, the General Plan encourages appropriate accompanying land uses, including office use (City of Long Beach 1989, 66). While the 1989 General Plan Land Use Element is not entirely clear on this point, it has in practice been interpreted to allow industrial uses as part of a mix but discourage heavy industry such as standalone metal smelter. Given that the Pumpkin Patch site has been used for oil production and the LCWA site has been used for storage of industrial manufacturing items, development of industrial uses on both sites, and accompanying office uses on the Pumpkin Patch site would be consistent with LUD No. 7 in light of the prior industrial history on both sites and the adjacent industrial activities on the City Property, the Plain All American, and AES Power Plant sites. Therefore, industrial development on the Pumpkin Patch and LCWA sites would not conflict with the Long Beach General Plan.

Both sites are also within the SEADIP and are addressed in the Neighborhood Plan section of the Land Use Element of the General Plan. The sites are also near areas of active oil operations described in the General Plan.

Consistency with the Long Beach Zoning Code

Synergy Oil Field Site

The project has a zoning designation of PD-1 (SEADIP). The site is within Subarea 11a, which allows for residential uses and Subarea 33, which designates the site for wetlands purposes, with 2 acres devoted as a least tern nesting site. The project proposes an amendment to the SEADIP that would establish both short-term industrial (oil production) uses and long-term open space, recreation (i.e., the visitors center and recreational trail) and wetlands restoration uses for the two subareas that encompass the Synergy Oil Field site.

The proposed project would restore the northern 76.52-acre restoration area portion of the Synergy Oil Field site (Subareas 11a and 33) and would abandon and remediate existing oil production facilities over time within the southern portion. All of the restoration work within the northern portion of the site would take place within Subarea 33, which designates this area for wetlands purposes. The central portion of the site is entirely within Subarea 33 and the southern portion is split between Subarea 33 and Subarea 11a. As described in the SEADIP, there is only an indefinite boundary between Subarea 33 and Subarea 11a and development in Subarea 11a is contingent upon wetlands preservation in Subarea 33. Furthermore, oil extraction operations on the site predate the adoption of the SEADIP's PD-1 designation. As such, the current operation of oil extraction facilities is allowed under this zoning. The proposed project would implement a phasing out of oil operations on the southern portion of the Synergy Oil Field site, which could take up to 40 years to complete. As wells are plugged and abandoned, they would be remediated and revegetated in the immediate area around each well. Eventually, the southern portion of the site could be restored as a wetland area; however, as described above, that would not occur as a part of the proposed project. The planned restoration in the northern portion of the site and around the well plugging and abandonment that would occur under the proposed project would be consistent with the zoning on the Synergy Oil Field site and, thus, would not conflict with PD-1. Currently, uses on the Synergy Oil Field site are not consistent with the uses identified in the SEADIP Subarea 11a, which identifies this portion of the project site for residential uses.

Under the proposed SEASP, the Synergy Oil Field site would be given a land use designation of CHWR. The CHWR land use designation provides for coastal restoration, access, visitor-serving recreation (boating, public launching, kayaking, paddle boarding, etc.), and biological reserves. Under the proposed SEASP, public access to coastal water is encouraged and uses such as interpretive centers and public parking associated with coastal resources are permitted. All uses proposed on the Synergy Oil Field site would be consistent with the land use designations in the proposed SEASP.

City Property Site

The City Property site is in Subarea 25 of SEADIP, which allows business park (office commercial and light industrial), restaurant, and hotel uses. As the oil extraction operations on the site predate the adoption of the SEADIP's PD-1 designation, the current operation of oil extraction facilities is allowed to continue under this zoning. The project proposes an amendment to the SEADIP that would establish both short-term industrial (oil production) uses and long-term open space and wetlands restoration uses for this area of Subarea 25 that would allow for the continued oil operations, the construction of a new oil pipeline between the Pumpkin Patch site (also within Subarea 25), and the eventual use of the non-oil production areas of the City Property site for open space. With these amendments, the proposed project would not conflict with the existing PD-1 designation on the City Property site under SEADIP.

Under the proposed SEASP, the land use designation on the City Property site would be CHWR, and the zoning, would therefore be CHWR, which would provide for the continuation of an existing use. As described above, under the proposed project, oil production and extraction would be phased out on the site over a period of 40 years. As wells are plugged and abandoned the immediate areas around each well would be revegetated. A pipeline would be constructed through the central portion of the site along an existing dirt road would be considered a continuation of the existing oil production facilities and, thus, would be consistent with the uses proposed under the SEASP.

Pumpkin Patch Site

The Pumpkin Patch site is also in Subarea 25 of SEADIP which allows light industrial uses. Therefore, the proposed project would not conflict with the existing PD-1 designation. The project proposes an amendment to the SEADIP that would permit oil production uses for this area of Subarea 25. Because oil and gas activities are governed by Title 12 of the City's Municipal Code, in addition to the zoning standards, the project also proposes an amendment to the City's Oil Map that would allow oil operations on the Pumpkin Patch site. With these amendments, the project would not conflict with the existing PD-1 designation on the City Property site under SEADIP and the uses would be consistent with those allowed under the SEADIP and the City's Oil Code.

Under the proposed SEASP, the land use designation on the Pumpkin Patch site would be industrial, and the zoning would, therefore, also be industrial. The SEASP would also allow for the retention of the office and industrial uses currently allowed under the SEADIP. Given the industrial uses proposed as part of the project, those uses would be consistent with the zoning in the proposed SEASP.

LCWA Site

The LCWA site is within Subarea 19, which allows industrial uses. Proposed uses on the LCWA site would be consistent with the existing zoning. The project proposes an amendment to SEADIP to clarify the applicability of height limits to oil storage facilities. There would be no conflict with the existing PD-1 designation.

Because oil and gas activities are governed by Title 12 of the City's Municipal Code, in addition to the zoning, the project also proposes an amendment to the City's Oil Map that would allow oil operations on the LCWA site.

Under the proposed SEASP, the land use designation for the LCWA site would be industrial and the zoning would also be industrial. Given the industrial uses proposed as part of the project, those uses would be consistent with the zoning in the proposed SEASP.

Consistency with Municipal Code 12.08 the Oil Map

As described above, City of Long Beach Municipal Code Chapter 12.08 defines the areas within the City where oil operations are permissible. To be consistent with the oil map, the proposed project would amend the oil map to include the Pumpkin Patch and LCWA sites on the oil map.

Consistency with the California Coastal Act and Long Beach Local Coastal Program

Synergy Oil Field Site

The Synergy Oil Field site (Subareas 11a and 33) has been removed from the LCP. Because it is not covered by the City's LCP, any development on the Synergy Oil Field site is reviewed for consistency with the Chapter 3 policies of the CCA, PRC Sections 30210-30265.5. The proposed project would be consistent with the overall goals and policies of the CCA to provide public access and recreational opportunities within the coastal zone.

The proposed SEASP would replace the existing PD-1 zoning in its entirety. In order to do this, an amendment to the City's LCP would need to be processed through the CCC. Overall, the proposed SEASP would support the goals of the LCP by directing development away from the wetlands, parks, and open space areas in the coastal zone and towards the urban core where development is currently present. The proposed SEASP also encourages public access to the coastal zone by creating view corridors, pedestrian walkways to the wetlands and the marina, and bicycle access opportunities. As a part of the proposed project, sidewalk improvements would be made to PCH, adjacent to the Pumpkin Patch site and bikeway improvements would be on the streets that front all four individual sites that comprise the project site.

City Property Site

The City Property site is not within the City's certified LCP; therefore, any new development would be required to be consistent with CCA policies. Implementation of the proposed project would be consistent with CCA policies that provide for continued energy production, and encourage the restoration of wetlands and habitat areas. Specifically, the proposed project would remove and remediate existing oil production facilities in order to consolidate operations to the maximum extent feasible, as required by CCA Policy 30262.

Pumpkin Patch and LCWA Sites

The Pumpkin Patch site (Subarea 25) and LCWA site (Subarea 19) are located within the LCP jurisdiction. The LCP provides policies regarding public access, recreation, marine environment, land resources, development, and industrial development. When the LCP was adopted, the PD-1 zoning regulations from the SEADIP were adopted by reference in the LCP and function as the current zoning for the project site. As described above, the proposed project is consistent with the existing zoning on the Pumpkin Patch and LCWA sites, and therefore, would be consistent with the LCP. The proposed project includes an amendment to the

SEADIP and the City's Oil Map that would allow for new oil production activities on the Pumpkin Patch and LCWA sites. The amendments would require an amendment to the City's LCP, and with implementation of the proposed amendments, there would be no significant impacts with respect to land use consistency.

Development on the Pumpkin Patch and LCWA sites would be consistent with the LCP because it would direct development away from the Synergy Oil Field and City Property sites and would consolidate oil production facilities and operations to a site that currently has adjacent industrial development. In addition, the sites would improve bicycle access by improving the existing bike lane on adjacent roadways.

Consistency with the Long Beach Bicycle Master Plan

As a part of the proposed project, improvements would be made to upgrade the existing bicycle lanes adjacent to all four of the individual sites that comprise the project site; thus, the proposed project would be consistent with the Bicycle Master Plan goal of identifying, developing, and maintaining a complete and convenient bicycle network and would be consistent with the overall Citywide Bicycle Master Plan.

Consistency with the AELUP

The proposed project is located within the Airport Environs Land Use Plan (AELUP) area for the Joint Forces Base Los Alamitos, which is a federally owned and operated airport facility located approximately 2.7 miles northwest of the Synergy Oil Field site (OCALUC 2002). According to the AELUP, notice to the FAA is required for any proposed structure more than 200 feet above ground level of its site within any jurisdiction. The project site is also located approximately in the 300-foot height restriction contour (OCALUC 2008). Given that development under the proposed project would be constructed to a maximum height of 35 feet on the Pumpkin Patch site, it would not adversely affect navigable airspace or require review by the FAA or OCALUC. The drilling rig on the Pumpkin Patch and LCWA sites would be 160 feet tall and would not adversely affect navigable airspace or require review by the FAA or ALUC. Therefore, the proposed project would be consistent with the AELUP.

Consistency with SCAG Policies

Southern California Association of Government's (SCAG's) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) establishes goals, objectives and policies with regard to High Quality Transit Areas, Livable Corridors, and Neighborhood Mobility Areas. The proposed project would be consistent with SCAG's goals to maximize mobility and accessibility, to protect the environment and health of residents by improving air quality and encouraging active transportation, and by actively encouraging energy efficiency. Therefore, the proposed project would be consistent with the SCAG 2016–2040 RTP/SCS.

Finding

Implementation of the proposed Project would not result in significant land use impacts with respect to consistency with applicable plans and policies that have been adopted for the purpose of avoiding or mitigating an environmental effect, and no mitigation measures would be necessary.

Cumulative Impacts

The adopted growth projections used for the cumulative analysis in the EIR are derived from the SCAG Integrated Growth Forecast of the 2016–2040 RTP/SCS, for the City. The proposed project would be consistent with the applicable state, regional, and local plans and policies, including the General Plan and,

thus, is consistent with the SCAG Integrated Growth Forecast of the 2016–2040 RTP/SCS. Therefore, cumulative impacts with regard to land use would be less than significant.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.8 Mineral Resources

Impact MR-1: The project would not result in the loss of availability of a known or locally important mineral resource that would be of value to the region and the residents of the state or is delineated on a local General Plan, Specific Plan, or other land use plan.

All oil wells on the Synergy Oil Field and City Property sites would be plugged and abandoned over time and the oil production currently generated by these wells would be replaced over time with oil wells drilled on the Pumpkin Patch and LCWA sites. Oil production facilities would continue to operate on the Synergy Oil Field and City Property sites until one of the following “trigger” events occur:

- Upon completion and occupancy of the oil production facilities on the Pumpkin Patch and LCWA sites, specifically occupancy of the new office facility on the Pumpkin Patch site (referred to as the New Occupancy Date), if an oil well on the Synergy Oil Field site produces less than one full barrel of oil per day for a period of 18 consecutive months or longer, the well would immediately be abandoned as required by the abandonment guidelines established by DOGGR.
- Within 20 years from the New Occupancy Date, 50 percent of the existing wells on the Synergy Oil Field and City Property sites would be removed and plugged and abandoned per DOGGR regulations.

The balance of the existing 53 wells, if not previously plugged and abandoned, would be removed and abandoned on or before the 40-year anniversary of the New Occupancy Date.

Once construction of oil production facilities on the Pumpkin Patch and LCWA sites is complete, oil resources would be extracted from these properties. Thus, oil resources would continue to be available and there would be no loss of oil and natural gas production availability. In addition, the older wells and equipment would be replaced with more efficient modern equipment. For example, the use of directional drilling would result in targeted extraction that would increase the production efficiency.

Finding

No impacts to mineral resources would occur, and no mitigation measures would be necessary.

Cumulative Impacts

The proposed project would allow for the continued availability of oil resources and, thus, the project would have no impact on continued availability of this mineral resource. When considered with other cumulative projects, the proposed project does not contribute any impacts to the potential loss of mineral resources and, therefore, has no significant cumulative impact relative to mineral resources.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.9 Noise

Impact NOI-2 The project would not result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels.

Construction

According to the 2004 Caltrans *Transportation- and Construction-Induced Vibration Guidance Manual* (Greve & Associates 2017), the most critical construction vibration concern is whether impact pile driving is used, as vibration levels can be higher than typical heavy construction equipment. The project would likely use vibratory pile driving for sheet piles, and no vibration impacts would occur with vibratory sheet pile driving. However, impact pile driving may also be considered for this project and the potential for impacts are discussed below.

In describing vibration in the ground and in structures, the motion of a particle (i.e., a point in or on the ground or structure) is used. Accordingly, vibratory motion is commonly described by identifying the PPV in inches per second (in/sec), which is generally accepted as the most appropriate descriptor for evaluating the potential for building damage.

The equipment to be used has not been determined; however, if impact pile driving was selected, as a worst case, a Delmag diesel hammer Model D30-32 was used for this analysis. The number of piles, length of construction, and size of piles is not yet known, and would be engineered as part of the design. The hours of the pile driving would be limited by the allowable construction hours of the City of Long Beach Noise Ordinance (Section 8.80.202). Caltrans equations were used to project the vibration level at the nearest receptor of 0.01 in/sec PPV, which is well below the 0.5 in/sec threshold of structural damage established in the Caltrans manual for the new residential structures and modern commercial buildings surrounding the project site; therefore, no structural damage would occur.

The potential for humans to feel the vibrations from project construction vibration, considered more of an annoyance issue rather than an impact, was also considered. At the mobile home park, which is at a distance of approximately 621 feet, the vibration levels of 0.01 in/sec PPV would be considered “barely perceptible.” Since the pile driving activities are short term in nature, annoyance is usually not used as the determinant for impacts. In addition, as no pile driving or grading would take place during the nesting season for sensitive bird species, pile driving vibration would not have an impact on any sensitive species on site.

Operation

The proposed project would develop oil wells, which when in operation, would generate vibration; however, the oil wells would be centrally located within the project site boundary, and not in proximity to humans or structures where they would exceed vibration thresholds for annoyance or structural damage.

Finding

Project-related impacts from groundborne vibration and noise would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative impacts during project construction and project operation were analyzed. Project construction noise was determined to not expose persons to, or generate, noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies. Project construction would occur in proximity to noise-sensitive receptors (i.e., residences), resulting in a substantial temporary increase in ambient noise levels at the receptors during construction; however, implementation of construction mitigation measures would reduce the construction noise impacts to a level of less than significant. Therefore, project construction noise would not be of the magnitude to potentially combine with other cumulative projects where noise could combine together to cumulatively substantially temporarily increase the ambient noise environment in the project area. Therefore, project construction would not be a cumulatively considerable noise impact (less than significant). Regarding vibration, project construction would occur in proximity to structures and inhabited buildings; however, construction vibration levels would be less than the vibration thresholds at the buildings. Therefore, project construction would not be a cumulatively considerable noise or vibration impact (less than significant).

Project operation would generate off-site vehicle traffic noise on area roadways and on-site noise from operating oil wells. The project does not have the potential to generate a substantial number of construction or operational vehicle trips. Therefore, project traffic noise increase on roadways surrounding the project site would be imperceptible and future traffic-related noise levels would not be cumulatively significant (less than significant). The Pumpkin Patch and LCWA sites would be developed with oil production facilities, which would generate noise from operational oil wells. The noise levels projected for oil production would be less than the ambient noise levels and would not exceed the Noise Ordinance criteria. Therefore, the noise impact from oil production operations at the Pumpkin Patch and LCWA sites would result in a less-than-significant impact, based on proper facility design. A mitigation measure has been prescribed to ensure that the facility is properly designed and future operational noise levels in these specific locations would not be cumulatively significant (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.10 Population and Employment

Impact PE-1: The project would not induce substantial indirect population growth.

Construction

There would be an increase in construction jobs at the project site as a result of implementation of the proposed project, estimated to necessitate 110 to 160 workers for construction activities, 40-60 personnel for the drilling process, and substantially less personnel for workover operations. A majority of the proposed project would be implemented in 4 years, while the remaining components (well plugging and abandonment,

well drilling, and operations) would occur over a 40-year period. Construction would last approximately 8 years on the Pumpkin Patch and approximately 11 to 12 years on the LCWA site.

There are over 250,000 construction workers in Los Angeles County (U.S. Census Bureau 2013). Recent overall unemployment estimates from April 2017 from the EDD show unemployment rates of approximately 4.1 percent for Los Angeles County. With an unemployment rate of approximately 4.1 percent countywide, it is likely that several thousand construction industry workers would be available, and it is expected that construction jobs would be filled from the local and/or regional (County) labor force. Given the availability of a construction workforce in Los Angeles County, which includes the project site, and also that the assignment would be temporary, it is assumed that construction workers would commute daily to the site. Therefore, construction-related activities would not result in an increase in the local population or require existing or projected local housing resources. Construction activities associated with the proposed project would not induce substantial indirect population growth.

Operation

The proposed project would create up to 30 new permanent employment positions for the oil operations, in addition to the 15 existing employees. The operation of the visitors center and operation and maintenance of the public access trails on the Synergy Oil Field site would also generate 5 additional employees, including 3 full-time employees and 2 volunteers.

The proposed project would provide employment opportunities for the local economy, and it is anticipated that the majority of the new jobs would be filled by the local labor force. According to the 2016–2040 RTP/SCS Growth Forecast, it anticipated that the city would have 181,700 available jobs by 2040, an increase of 22,772 jobs from the 158,928 jobs available in 2015 (SCAG 2016; Bureau of Labor Statistics 2017).

As described above, the employment opportunities projected for the proposed project are within the growth projections anticipated for the city for the year 2040 (SCAG RTP/SCS). Because the proposed project construction employment and operational employment would be within the anticipated growth projections, the project could be considered growth accommodating and not growth inducing. Furthermore, future employment would also include existing employees that would be relocated to the new operations site, and a majority of employment opportunities that would be generated by the proposed project are anticipated to be filled by the local employment pool and would, therefore, not induce substantial population growth in an area, either directly or indirectly. Operation of the proposed project, including ongoing operation of the oil production facilities and the new visitors center and public access trail, would not induce substantial population growth.

Finding

Population and employment impacts of the proposed project would be less than significant, and no mitigation measures would be required.

Cumulative Impacts

Development of cumulative projects could result in increases in population and employment; however, according to the 2016–2040 RTP/SCS, the population in Long Beach is projected to be approximately 484,500 persons by the year 2040. This represents a decrease of approximately 458 persons from the 484,958 persons in 2016. The number of jobs in the City is expected to increase to approximately 181,700 jobs by the year 2040 from the 158,928 jobs available in 2015 (SCAG 2016). Thus, the employment opportunities projected for

the proposed project are within the growth projections anticipated for the City for the year 2040 (SCAG RTP/SCS). The proposed project would not include any permanent housing on site and, thus, would not contribute to an increase in residents to the City. Therefore, the project would not make a cumulatively considerable contribution to any potential cumulative impact related to substantial increases in population, and the project's cumulative impact would be less than significant.

Development of cumulative projects in in the project area would be expected to result in indirect population growth through provision of increased employment opportunities. Employment growth would be considered substantial if it resulted in housing demand that would exceed planned regional housing development. The proposed project would provide up to 160 temporary construction jobs. It is expected that construction jobs would be filled from the local and/or regional (County) labor force. As workers would be drawn from areas within Los Angeles and Orange Counties to the project site, and their assignment would be temporary, it is assumed that they would commute daily to the site; thus, increased employment as a result of the project would not result in a significant cumulative impact regarding inducing substantial population growth to the project vicinity.

During operation, the proposed project would create up to 30 new permanent employment positions for the oil operations, in addition to the 15 existing employees. The operation of the visitors center and operation and maintenance of the public access trails on the Synergy Oil Field site would also generate 5 additional employees, including 3 full-time employees and 2 volunteers. The proposed project would provide employment opportunities for the local economy, and it is anticipated that the majority of the jobs would be filled by the local labor force. Therefore, the proposed project would not have a significant cumulative impact with regard to inducing substantial population growth to the project vicinity during project operations.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.11 Public Services

Impact PS-2: The project would not result in the need for new or physically altered facilities in order to maintain acceptable response times for police protection services.

Construction

During the construction activities, the need for police services would increase due to the potential for additional crime and accidents associated with construction sites which may include: theft of building materials and construction equipment, malicious mischief, graffiti, and vandalism.

To deter crime, the proposed project would include security measures such as fencing along site perimeter of the construction sites, lighting during non-construction hours, and security personnel located on site at night during the construction phase. Given that construction activities are temporary and the security measures that would be in place during construction, the proposed project would not substantially increase the demand for Long Beach Police Department's (LBPDP's) services. Nor would implementation of the proposed project significantly increase LBPDP's response times to either to the project site or the surrounding vicinity.

Therefore, it is not anticipated that the proposed project would substantially increase the service demand for police services in the area.

Operation

During the project operation, the need for police services potentially increase due to the potential for additional crime and accidents associated with more structures and more people on site. Crime and safety issues during project operation may include: theft of building materials and operational equipment, malicious mischief, graffiti, and vandalism.

The proposed project would include security measures such as fencing along site perimeter of all four individual sites, security cameras, and security lighting, which would decrease the likelihood of crime on the project site during operation. There will be a long-term increase of 5 employees, including 3 full-time employees and 2 volunteers, associated with the visitors center on the Synergy Oil Field Site. The increase in the number of employees is considered negligible in terms of the impact on the need for police services, and would not require the construction of a new police station or improvements to the existing station that serves the project site. Although the proposed visitors center would increase the number of daytime visitors on the Synergy Oil Field site, the proposed project would pay fees to compensate for any impacts to police services anticipated from its operation. This includes the City's Police Facilities Impact Fee as part of the project building fees, as well as the Proposition H oil barrel tax that funds police services including salaries, worker benefits and academies. Therefore, it is not expected that the proposed project would result in the need for new or physically altered facilities in order to maintain acceptable response times for police protection.

Finding

Project-related impacts to police protection services would not result in the need for new or altered facilities to maintain acceptable response times; therefore, impact would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Similar to the proposed project, other projects in the LBFD and LBPB's service area would pay the Fire Facilities and Police Facilities Impact Fees as determined appropriate by LBFD and LBPB, which would help offset any impacts from those projects on fire and police services. Further, any oil-producing projects would be taxed like the proposed project according to Proposition H, which generates funding to support fire and police protection services. According to the most recent 2016 RTP/SCS Growth Forecast, the population in Long Beach is projected to be approximately 484,500 persons by the year 2040. This represents a decrease of approximately 458 persons from the 484,958 persons in 2016; however, the number of jobs in the City is expected to increase to approximately 181,700 jobs by the year 2040 from the current 158,928 jobs (SCAG 2016). Increased property and sales tax from future new developments would increase the City's General Funds, which would also provide funding for any capital improvements necessary to maintain adequate fire protection facilities, equipment, and/or personnel. Furthermore, as with the proposed project, individual development projects pursuant to the City's General Plan would be reviewed by the City and LBFD for consistency with fire code requirements including emergency access as detailed in the City's Municipal Code, and would be required to comply with all applicable IFC and City Municipal Code fire-related regulations in effect at the time building permits are issued. Therefore, compliance with existing regulations pertaining to fees

and fire code would ensure the proposed project in combination with other projects would not result in significant cumulative impacts to fire and police protection services.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.12 Recreation

Impact RE-1: The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.

Construction

During construction of the proposed project, there would be a temporary increase in construction workers on the project site who would not likely relocate their households as a consequence of working on the proposed project. Therefore, the short-term increased employment of construction workers would not increase demand or use of the existing parks and recreation facilities. It is anticipated that construction workers would not use nearby parks during their lunch break, as lunch breaks are not typically long enough for workers to take advantage of such facilities; however, if construction workers were to use the existing recreational facilities it would only increase use at those facilities for up to 60 minutes a day, which would be considered a less than substantial impact.

Construction of the Class II bikeway improvements and new sidewalks are proposed by the project and would result in temporarily inaccessibility to portions of the bikeway; however, bikeway detour signs would be posted to redirect bike users to utilize other bikeways in the area during this temporary construction period. The streets that would be impacted would be adjacent to the four property sites.

Operation

The proposed project would not introduce any permanent residents to the project area. The proposed project would create up to 30 new permanent employment positions for the oil operations, in addition to the 15 existing employees, for an approximately 40-year time period while the wells are phased out. For the oil production facilities at the Pumpkin Patch and LCWA sites, there would be approximately 40 to 60 total personnel per day, and once all drilling has been completed, the number of on-site employees would be reduced to approximately 4 to 8 full-time employees on each site. As these employees would most likely come from the workforce in the project area, this would not introduce an increased use on the existing parks and recreational facilities in the project area.

The proposed project would also introduce approximately 5 new employees, including 3 full-time employees and 2 volunteers, to the Synergy Oil Field site, as a result of the development of the visitors center, associated parking lot, and public access trail. It is anticipated that the majority of jobs would be filled by the local labor force who would not likely relocate their households as a consequence of working on the proposed project. Accordingly, there would not be a corresponding demand or increased use of the existing parks and recreation facilities. Moreover, recreational opportunities would be provided on site for new employees. Similar to the construction workers, as discussed above, it is anticipated that the employees would not use nearby parks

during their lunchbreak; however, if employees were to use the existing recreational facilities during their lunch break, it would only increase use at those facilities for up to 60 minutes a day.

Additionally, the proposed project would introduce usable open space, a public access trail, overlook terrace with picnic facilities, visitors center, and associated parking on the Synergy Oil Field site. There is no turf in picnic area but would comprise a mix of gravel and native vegetation. The Synergy Oil Field site would be open to public access from dawn until dusk, 7 days a week. This would introduce an anticipated 15,000 to 20,000 visitors to the project site each year. Due to the increased availability of recreational amenities at the Synergy Oil Field site, the proposed project could increase the use of existing recreational facilities in the surrounding area. Proposed improvements to the bikeways and sidewalk improvements along the frontages of the four individual sites would be direct beneficial effects. Therefore, the proposed project would not result in the increased use of existing parks or recreational facilities such that substantial deterioration of these resources would occur or be accelerated. Additionally, the project would expand and enhance recreational opportunities available within the project vicinity. This would be a direct beneficial effect.

Finding

Project construction workers and permanent employees would not generate an increase in demand for park and recreation facilities such that it would result in the accelerated physical deterioration of a park or recreation facilities; therefore, impacts would be less than significant, and no mitigation measures would be necessary.

Impact RE-2: The project would include recreational facilities but would not require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Currently, there are no existing recreational facilities located on the project site. The proposed project would both construct and enhance recreational facilities on site. As described throughout this EIR, the visitors center, public access trail, and associated parking lot would be constructed in areas with the least potential to disturb native habitat and any potentially significant impacts associated with the visitors center, public access trail, and upgraded bikeway would be mitigated to the maximum extent possible. No additional mitigation measures would be needed.

The project includes the construction of a new pedestrian perimeter trail along the Studebaker edge of the Synergy Oil Field site, the relocation of the Bixby Office building and renovation of the building for use as a visitors center and wetlands restoration on the northern portion of the Synergy Oil Field site. The impacts of wetlands restoration and trail construction have been analyzed in other sections of the EIR, including air quality, traffic, and noise. The impacts of renovating the existing Bixby Ranch Field Office building has been analyzed in Section 3.4, *Cultural Resources*, due to its potential historical significance. None of the impacts of the construction work associated with the open space and habitat restoration and construction of these recreational/public access amenities was considered a significant, unavoidable impact, and would, once constructed and operational, provide a beneficial impact with respect to increased recreational opportunities in the City.

Finding

Project-related impacts with the increased availability of recreational amenities would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

The cumulative project area for the consideration of cumulative recreation impacts is the SEADIP area. Although the 16 cumulative projects identified in Table 3-1, List of Cumulative Projects, in the EIR could contribute to a cumulative impact to recreation by increasing the demand for recreational opportunities and facilities, the project could also result in recreational opportunities in the area. As the proposed project would have a less-than-significant impact on recreation, its incremental effects would not be considered cumulatively considerable and, therefore, cumulative impacts on recreation would be less than significant.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.13 Transportation and Traffic

Impact TRA-1: The project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Construction

Construction of the proposed project has the potential to affect the transportation system through the hauling of excavated materials and debris, the transport of construction equipment, the delivery of construction materials, and travel by construction workers to and from the project site. Although construction activities would be phased over the course of the overall construction period, the analysis of potential impacts assumed that they would all occur simultaneously, in order to evaluate a worst-case scenario with the maximum number of workers and trucks accessing the project site. This conservative approach yielded a total of approximately 556 daily trips that could be generated by the up to 160 workers (320 daily trips) and up to 118 trucks (236 daily trips) accessing the project site. Therefore, the maximum trip generation associated with construction activity would be approximately 594 daily trips for about 10 days. It should be noted that due to typical construction start and finish times, these trips would occur outside the heavily-congested peak traffic periods and would, therefore, not contribute to delay currently experienced by vehicles traveling through the study area. Additionally, trucks accessing the project site would use City-designated truck routes (e.g., PCH, Bellflower Boulevard, 7th Street) to the extent feasible (LBDPW 2006); the Applicant has agreed to work with City staff to avoid sensitive areas and/or areas of concern to avoid any impacts to the highway network and adjacent properties.

While construction impacts would be less than significant, the City is proposing the following standard Condition of Approval for a Construction Traffic Management Plan (CTMP) for the project. The CTMP shall be submitted to the City's Development Services Department for review, and issuance of demolition, grading, or building permits is subject to approval of the CTMP. The City is proposing the following Conditions of Approval as part of its Site Plan Review procedures:

Condition of Approval TRA-1: Construction Traffic Management Plan

The following conditions are recommended:

- A flagman shall be placed at the truck entry and exit from the project site.
- To the extent feasible, truck trips (i.e., hauling of export and import materials, and deliveries and pick-ups of construction materials) shall be scheduled during non-peak travel periods and coordinated to reduce the potential of trucks waiting to load or unload for protracted periods of time.
- Access shall remain unobstructed for land uses in proximity to the project site during project construction.
- Minimize lane and sidewalk closures to the extent feasible. In the event of a temporary lane or sidewalk closure, a worksite traffic control plan, approved by the City of Long Beach, shall be implemented to route traffic, pedestrians, or bicyclists around any such lane or sidewalk closures.
- A CTMP shall be developed by the contractor and approved by the City of Long Beach. In addition to the measures identified above, the CTMP shall include the following:
 - Schedule vehicle movements to ensure that there are no vehicles waiting off site and impeding public traffic flow on the surrounding streets.
 - Establish requirements for the loading, unloading, and storage of materials on the project site.
 - Coordinate with the City and emergency service providers to ensure adequate access is maintained to the project site and neighboring businesses.
 - Establish hotline operating 24 hours per day, 7 days per week that concerned citizens can contact to lodge construction traffic-related concerns.
 - Maintain a daily log of which trucks and equipment are used on site.
 - Pre- and post-construction surveys of site-adjacent City roadways and properties in order to identify and repair any damage caused by construction activities.

Operation

Operational trip generation characteristics of the proposed project are provided as worst-case estimates and summarized below:

- Oil production facilities would generate a total of 61 daily trips with approximately five trips during the AM and PM peak hours.
- Visitors center would provide about 50 parking spaces for employees and visitors. There is no quantitative information regarding the trips associated with the visitors center; however, the on-site parking supply would not be expected to accommodate a high number of daily vehicle trips, and based on knowledge of operations at similar, nearby visitors centers, it is assumed that the majority of these trips would not occur during the peak traffic hours.
- Drilling of wells – Personnel and ancillary truck traffic would generate 132 to 192 trips per day. Because oil drilling operations occur throughout the day, it is assumed that the majority of these trips would not occur during the peak traffic hours. Once the wells have been drilled, they would require periodic maintenance and workover operations. Vehicle trips associated with these activities are much less than those required during the active drilling process. Consistent with well drilling activities, the majority of these trips would be outside of the peak traffic periods.

Based on the above, the proposed project would not generate 50 or more net new peak-hour trips during the AM and PM peak hours, which is the screening criterion to determine when project-specific traffic impacts are required to be assessed based on the City's guidelines.

Finding

The construction and operation of the proposed project would result in a less-than-significant impact to operating conditions for the existing area roadway system. Implementation of Condition of Approval TRA-1, would further reduce a less-than-significant construction impact. Therefore, no mitigation measures would be necessary.

Impact TRA-2: The project would not conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Construction

Metro is responsible for implementing the CMP for the County of Los Angeles. The CMP for Los Angeles County requires an analysis of any project that could add 50 or more trips to any CMP intersection or more than 150 trips to a CMP mainline freeway location in either direction during either the AM or PM weekday peak hours. The only CMP facility located in the vicinity of the proposed project is the intersection of PCH and 2nd Street/Westminster Avenue, which currently operates at LOS E during both the AM and PM peak hours. As stated above in the discussion of Impact TRA-1, implementation of the proposed project would not generate 50 or more new net trips during the AM or PM peak hours; therefore, the proposed project would not result in a significant impact to a CMP roadway intersection or CMP freeway segment during construction activities. Implementation of Condition of Approval TRA-1 would further reduce this less than significant impact.

Operation

As stated in the discussion Construction impacts above, the only CMP facility located in the vicinity of the proposed project is the intersection of PCH and 2nd Street/Westminster Avenue, which currently operates at LOS E during both the AM and PM peak hours. As stated above in the discussion of Impact TRA-1, implementation of the proposed project would not generate 50 or more new net trips during the AM or PM peak hours; therefore, the proposed project would not result in a significant impact to a CMP roadway intersection or CMP freeway segment during operation of the project.

Finding

Construction and operation of the proposed project would not conflict with the CMP for Los Angeles County and, therefore, would result in a less-than-significant impact. Implementation of Condition of Approval TRA-1, would further reduce the less-than-significant construction impact.

Impact TRA-3: The project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks

The proposed project is located within the airport influence area of the Joint Forces Training Base (JFTB) Los Alamitos (OCALUC 2016); however, as established in the *Southeast Area Specific Plan Draft EIR* (PlaceWorks 2016), the project site is not within safety hazard zones or noise contours of the JFTB. Further, the proposed project would not include any height elements that would conflict with height restrictions identified in the Airport Environs Land Use Plan (OCALUC 2016). Therefore, implementation of the proposed project would not result in any impacts to air traffic patterns.

Finding

No impact to air traffic patterns would occur, and no mitigation measures would be necessary.

Impact TRA-4: The project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Construction

Trucks accessing the project site would use City-designated truck routes (e.g., PCH, Bellflower Boulevard, 7th Street) to the extent feasible. Additionally, the Applicant has agreed to avoid sensitive areas and/or areas of concern to avoid any impacts to the highway network and adjacent properties. The implementation of Condition of Approval TRA-1, described above under impact discussion TRA-1, would further reduce this less-than-significant construction impact.

Operation

The proposed project would include the following new driveways:

- **Pumpkin Patch Site:** a new 24-foot-wide access driveway off of Studebaker Road with access to the two-story office building; two new one-way driveways (33.5 feet wide for ingress, 31 feet wide for egress) off Studebaker Road with access to the warehouse and oil production facilities; and
- **LCWA Site:** replacement of the existing driveway with a new 30-foot-wide access driveway off Studebaker Road; a new 30-foot-wide access driveway (right in/right out) off Westminster Avenue.

On-site traffic signing and striping would be implemented in conjunction with detailed construction plans for the project. Sight distance at the project accesses would comply with standard California Department of Transportation and City of Long Beach sight distance standards. The final grading, landscaping, and street improvement plans would demonstrate that sight distance standards are met. Such plans would be reviewed by the City and approved as consistent with this measure prior to issue of grading permits.

In addition to the driveways described above, on-site vehicular and pedestrian circulation would be accommodated by the proposed project. The proposed project would also upgrade the streets fronting all four properties of the project site with pedestrian and bikeway improvements.

All of the transportation facilities described above would be designed and constructed to comply with all relevant City standards to ensure that facilities operate safely and efficiently. The City and the Long Beach

Fire Department (LBFD) have adopted roadway standards that preclude the construction of any unsafe design features. Therefore, no significant impact with operation of the proposed project would occur.

Finding

Construction of the proposed project would result in a less-than-significant impact with regard to hazards and incompatible uses. The implementation of Condition of Approval TRA-1, described above under impact discussion TRA-1, would further reduce this less-than-significant construction impact. Compliance with adopted roadway design standards would ensure that operation of the proposed project would result in a less-than-significant impact with regard to hazards and incompatible uses.

Impact TRA-5: The project would not result in inadequate emergency access.

Construction

Construction activities for the proposed project would generate truck trips and employee trips, which could temporarily increase the daily traffic volumes on local roadways and intersections; however, as described above in the discussion of Impact TRA-1, construction-related truck and employee trips would occur outside the heavily-congested peak traffic hours and would, therefore, not contribute to delay currently experienced by emergency vehicles traveling on PCH or on 2nd Street/Westminster Avenue.

Construction staging would occur primarily on site and would not be expected to disrupt access to nearby uses. No road closures are anticipated. While roadway closures are not anticipated, any work within the existing right of way would have to comply with Caltrans permitting requirements. This includes a traffic control plan that adheres to the standards set forth in the California Manual on Uniform Traffic Control Devices (MUTCD) (Caltrans 2017). As part of these requirements, there are provisions for coordination with local emergency services, training for flagmen for emergency vehicles traveling through the work zone, temporary lane separators that have sloping sides to facilitate crossover by emergency vehicles, and vehicle storage and staging areas for emergency vehicles. MUTCD requirements also provide for construction work during off-peak hours and flaggers. The implementation of Condition of Approval TRA-1, described above under impact discussion TRA-1, would further reduce this less-than-significant construction impact.

Operation

The proposed project would be designed and constructed in accordance with all applicable LBFD design standards for emergency access (e.g., minimum lane width and turning radius). Compliance with these codes and standards is ensured through the City's and LBFD's development review and building permit process. Therefore, no significant emergency access impacts would occur with operation of the proposed project.

Finding

Project-related impacts to emergency access would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative traffic impacts are generated when the proposed project, combined with traffic generated by complete buildout of the City's General Plan, contributes to unacceptable operating conditions on study area roadways. A significant cumulative impact would be identified when a facility is projected to operate below

the LOS standards due to cumulative future traffic in combination with project-related traffic increases. The proposed project would not generate 50 or more net new peak-hour trips, which is the screening criterion for which impacts are required to be assessed based on the City's guidelines. As such, the operation of the proposed project would result not result in a cumulatively considerable impact to the performance of nearby roadways (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.14 Utilities and Service Systems

Impact UT-1: The project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Construction

During project construction activities a minimal amount of wastewater would be generated by construction workers and collected by portable toilet facilities. All wastewater generated in portable toilets would be collected by a permitted portable toilet waste hauler and appropriately disposed of at one of the County identified liquid waste disposal stations. These waste disposal stations are permitted by the Los Angeles Regional Water Quality Control Board (LARWQCB).

Operation

The majority of wastewater generated by the proposed project would be saline water produced as a result of oil extraction operations. In addition, some wastewater is generated during the processing of the extracted oil, largely through the cleaning of oil processing equipment. Currently, the produced water and processing water is disposed of into the sanitary sewer system for treatment at Los Angeles County Sanitation District (LACSD) treatment facilities. The proposed project would change this practice by installing injection wells on the Pumpkin Patch and LCWA sites. The produced water and processing water would be treated and injected back into the oil production zones. The re-injection would remove this wastewater from the current practice of discharge to the sewer system to the LACSD treatment facilities. This would eliminate the potential to conflict with Regional Water Quality Control Board (RWQCB) wastewater treatment requirements and would result in no impact.

Operation of the proposed visitors center at the Synergy Oil Field site has the potential to result in a nominal increase of the amount of sanitary wastewater generated due to the use of the visitors center facilities. Sanitary wastewater generated by the visitors center would be treated at the existing LACSD treatment facilities. LACSD has been issued a facility-specific NPDES permit by the LARWQCB. Waste discharge requirements (WDRs) for the proposed project are based on all applicable State and federal regulations, policies, and guidance. Although the volume of wastewater would nominally increase, the nature of wastewater disposed to the sanitary sewer system would remain unchanged and would, therefore, still be acceptable under the existing site discharge requirements. The proposed project would continue to be served by existing sewer systems located within public streets and rights-of-way and the LACSD treatment facilities.

The transfer of oil production operations personnel to the Pumpkin Patch site would relocate the existing sanitary wastewater source from the Synergy Oil Field to the Pumpkin Patch site. The sanitary waste would still be discharged to the same sewer distribution system and to the same LACSD treatment facilities, all under the same discharge requirements and regulations.

Finding

Project-related impacts related to wastewater treatment requirements would be less than significant, and no mitigation measures would be necessary.

Impact UT-2a: The project would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The current operational water use is about 0.15 afy. The following construction activities would require water:

- Installation of oil production wells and water injection wells
- Plugging and abandonment of existing wells
- Hydrostatic testing of new pipelines and storage tanks
- Construction of new facilities (buildings, well cellars, pads for storage tanks, oil processing equipment, and associated infrastructure)
- Cleaning equipment and dust suppression

The following operational activities would require water:

- Routine processing of oil
- Irrigation of the vegetation installed for the wetlands habitat restoration for the first two years
- Visitors center and the Pumpkin Patch Operations Building

Water for construction and operations would be provided by the Long Beach Water Department (LBWD). The projected water use for construction activities and operations that would be acquired from the LBWD over the next 60 years is summarized in Draft EIR Table 3.17-4, Summary of Projected Annual Water Usage. The maximum combined construction and operations water use would be about 124 acre-feet from the third year through eleventh year when oil wells would be constructed at the Pumpkin Patch and LCWA sites. Water use would be less in all other years. The LBWD expects to have at least 76,983 afy of available surplus water, which exceeds the needs of the proposed project for any year.

The proposed project would continue to receive water supplies through the existing water lines that serve the project area. Water supply pipelines would be installed to connect the Synergy Oil Field site, the Pumpkin Patch site, and the LCWA site to existing water supply pipelines in adjacent roadways. The City Property site would not require water service. Although construction of the on-site public water main and distribution lines would be required to support the operations facility, no extensions or expansions to the water pipelines supplying the project site would be required. The necessary water supply line improvements are included as part of the proposed project and would not result in any physical environmental effects beyond those identified in the EIR.

Finding

Although the proposed project would result in an increased volume of water used for some years, the proposed project would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, and impacts would be less than significant. No mitigation measures would be necessary.

Impact UT-2b: The project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Wastewater Treatment Facilities

Construction

Drilling wells for the proposed project would require the use of water for mixing the drilling mud; however, upon completion, the drilling mud would be sent off site for disposal to a landfill permitted to accept drilling mud. The mud would not be sent to a wastewater treatment facility.

All wastewater generated during construction, including water from washing down trucks, equipment, and concrete construction pads, would be stored on site within temporary storage tanks. These tanks would store all wastewater and would be periodically hauled off site by vacuum trucks. Construction workers would use portable sanitary units during construction activities for the proposed project. Wastewater generated during construction of the proposed project would be minimal and would not require the construction of new wastewater treatment facilities. After settling out the solids, the wastewater would be sent to the LACSD treatment facilities for treatment and disposal. The LACSD treatment plants have capacity to accommodate this increase. Therefore, construction of new or expanded facilities would not be required to accommodate the construction of the proposed project and no significant impact would occur.

Operation

Currently, the majority of wastewater associated with the project site is the saline water produced as a result of oil extraction operations. This produced water is currently conveyed to the sanitary sewer system for treatment at LACSD treatment facilities. The proposed project would no longer convey saline water into the sewer system. Instead, the produced water would be injected back into the oil production zones. This injection practice would decrease the volume of wastewater currently discharged to the sanitary sewer system.

In addition, area drains on the Pumpkin Patch and LCWA sites would be routed to the well cellars, which would provide the capacity to contain a 25-year 24-hour rainstorm. The stormwater would be processed through into the facility's water treatment system and then injected into the oil production zones, preventing any on-site rainfall from being discharged from the facilities. Stormwater that accumulates within the curbed areas around process equipment would be held within the curbed area until it can be visually inspected before being drained to the well cellars, processed through the water treatment system and then injected into the oil production zones. Similarly, stormwater that accumulates within the containment walls around the storage tanks would be held until it can be pumped to the water treatment system and then injected into the oil production zones.

Although the volume of sanitary wastewater (e.g., toilets, washrooms) would increase due to the increase of employees and by the public using the visitors center, such an increase can be accommodated by the LACSD treatment plants.

Because of the comparatively large reduction in waste water generated from oil production, there would be no requirement for the construction of new or expanded wastewater treatment facilities to serve the proposed project. Additionally, the existing sewer lines are sized to accommodate the volume of wastewater produced from the project. Because construction of new or expanded facilities is not required to accommodate the proposed project and the overall volume of wastewater would decrease, there would be no operational impacts associated with the provision of these facilities to serve the project.

Finding

There would be no impact to wastewater treatment facilities, and no mitigation measures would be necessary.

Impact UT-3: The project would not require or result in the construction of new stormwater drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.

Construction and Operation

Stormwater runoff from the area around the visitors center of the Synergy Oil Field site would be routed to bioretention basins that would control stormwater flow rates to be equal or less than the pre-developed condition. The northern portion of the Synergy Oil Field site would be restored where stormwater would flow naturally into the restored wetlands and ultimately into the Los Cerritos Channel. The proposed drainage patterns around the visitors center of the Synergy Oil Field site would be designed to have stormwater runoff sheetflow into swales, gutters, and biofiltration BMPs before discharging into the existing City-wide storm drain system. Per the recommendations of the project LID Plan, water quality BMPs would be implemented on all individual sites except the City Property site.

All stormwater on the Pumpkin Patch and LCWA sites would be routed to the well cellars designed to contain a 25-year 24-hour rainstorm event. The stormwater would then be pumped into the facility's on-site water treatment system to ultimately be injected into the oil reservoirs, preventing any on-site rainfall or stormwater from being discharged from the Pumpkin Patch and LCWA sites.

Therefore, the project would not require the expansion of any off-site stormwater drainage facilities. The construction of the on-site stormwater drainage facilities would be designed in accordance with the City Stormwater Manual and MS-4 Permit requirements.

Finding

With the addition of on-site injection of stormwater (Pumpkin Patch and LCWA sites), implementation of the new BMPs proposed within the LID Plan, and compliance with applicable regulatory requirements, impacts related to the need to construct or expand stormwater drainage facilities would be less than significant, and no mitigation measures would be necessary.

Impact UT-4: The project would have sufficient water supplies available to serve the project from existing entitlements and resources.

As discussed above in Impact UT-2a, the existing public water supply would have sufficient available surplus water supplies compared to the maximum 1-year needs of the project.

Finding

Impacts related to water supply would be less than significant, and no mitigation measures would be necessary.

Impact UT-5: The project would result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Construction

Currently, wastewater flows from the Synergy Oil Field and City Property sites are conveyed to existing LACSD trunk sewer lines; no wastewater is currently generated at the Pumpkin Patch and LCWA sites. Wastewater generated during construction, including water from washing down trucks, equipment, and concrete construction pads would be stored on site within temporary storage tanks. Tanks would be used to store all wastewater to be hauled off site periodically by vacuum trucks. Hydrostatic test water would be acquired from the LBWD, and would be stored and reused on site to the extent possible. Then the water would be routed to the on-site injection wells and not routed to the sanitary sewer system. Wastewater generated during construction activities would be nominal compared to the 425 mgd capacity of the JWPCP and LBRP treatment facilities of the LACSD. Therefore, the construction of the proposed project would not result in substantial capacity impacts to LACSD and impacts related to the provision of wastewater treatment in addition to LACSD's existing commitments.

Operation

As discussed above in Impact UT-2b, the majority of currently generated wastewater is produced water from oil extraction operations. The project would install injection wells that would return this produced water to the oil production zones, thus eliminating this wastewater source. This would reduce the volume of wastewater produced by the site by approximately 0.5 mgd or 566 afy. Wastewater from facilities safety showers, wash down connections, and facility operations would be also sent to the injection wells. Wastewater generated from on-site employees and recreational visitors to the visitors center would be nominal compared to the 425 mgd capacity of the combined JWPCP and LBRP treatment facilities and no new or expanded facilities would be needed. Therefore, because the proposed project would result in an overall decrease in the volume of wastewater, there would be no impact to the operational capacity of the LACSD wastewater treatment facilities.

Finding

Project-related impacts regarding the adequacy of the wastewater treatment provider to serve the proposed project's demands in addition to their existing commitments would be less than significant, and no mitigation measures would be necessary.

Impact UT-6: The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Construction

Demolition and construction activities would generate solid waste from the demolition of existing structures (the existing oil wells, piping, and associated infrastructure to be removed from the Synergy Oil Field and City Property sites); the previously landfilled waste to be removed from the Pumpkin Patch site, if needed; and construction activities at the Pumpkin Patch site, LCWA site, and the oil and utility pipeline connecting the Pumpkin Patch and LCWA sites. The solid waste would include metals, concrete, asphalt, wood, cardboard, glass, plastics, soil, and other materials.

The majority of the metals waste would be recycled at local metals recyclers. Some other solid waste may also be recycled such as asphalt, concrete, and the boxes and crates used in the shipment of materials, depending on the nature of the material. For example, asphalt plants would be unlikely to accept asphalt mixed with soil. Consequently, it is anticipated that some of the listed demolition and construction waste may not be acceptable for recycling. The types and volumes of solid waste anticipated to be sent for disposal at landfills is summarized in Draft EIR Table 3.17-5, Anticipated Volumes of Solid Waste for Landfill Disposal During Construction. The anticipated volumes conservatively assume that all of the landfill material at the Pumpkin Patch would be removed.

The five landfills that can serve the project would have the capacity to accept all of the solid waste. Therefore, construction and demolition activities of the proposed project would not result in the need to expand the existing landfill facilities or construct a new landfill facility. Contaminated soil would be segregated and disposed of at the Kettleman Landfill, which is permitted to accept hazardous waste. The Kettleman Landfill is in the process of expanding its hazardous waste unit capacity by an additional 4.9 million cubic yards, which is anticipated to provide an additional 8 to 9 years based on the typical rate of hazardous waste disposal (DTSC 2014).

Operation

Operation and maintenance of the proposed project would result in minimal trash generation, mainly personal waste generated by operation and maintenance crews. The new office building would recycle waste such as pallets, cardboard and paper boxes, paper, plastics, scrap steel, scrap aluminum, and scrap wire. Other office-type trash and rubbish would be collected in waste bins and disposed of by Long Beach waste haulers. The typical volume of operations waste that would be sent for disposal at an off-site landfill is anticipated to be about 13 tons per year. The project facilities would also generate solid waste from oil and gas production operations, primarily solids brought up from production wells during the extraction process. This material would be transported off site for further processing, likely to a petroleum processing facility.

As discussed above, the five landfills would have the capacity to accommodate the amount of trash generated by the proposed project. The proposed project would not result in the need to expand the existing landfill facilities or construct a new landfill facility.

Finding

Construction and operational activities would result in less-than-significant impacts related to landfill facilities, and no mitigation measures would be necessary.

Impact UT-7: The project would comply with federal, state, and local statutes and regulations related to solid waste.

Construction

As previously discussed, the project would generate various materials that would be considered solid waste. A majority of this material would consist of non-hazardous materials that would be acceptable at the five landfills that can serve the project under the waste acceptance criteria in their current operating permits. As previously discussed, the three landfills that can serve the project have the daily and total available capacity to accept the solid waste that would be generated from operation of the proposed project. There are two sources of solid waste that may require disposal as a hazardous waste at a disposal facility permitted to accept hazardous waste.

- Soil at the Synergy Oil Field and the City Property sites is currently being investigated (tested) for the presence of contaminants in soil at concentrations above screening levels. If present, contaminated soil would be segregated and disposed of at the Kettleman Landfill, which is permitted to accept hazardous waste.
- Pipeline segments that exceed action levels for naturally occurring radioactive materials would be segregated from other materials for handling, disposed as low-level radioactive waste, and hauled to a facility designed to accept these wastes, likely the landfill in McKittrick, California.

For all remaining solid waste, the project would comply with all City and County construction and demolition requirements during construction of the proposed facilities. All non-hazardous solid waste would be hauled off site by truck to one or more of the previously listed solid waste landfills. The proposed project would comply with all federal, State, and local statutes related to solid waste disposal.

Operation

The City is required to comply with the California Integrated Waste Management Act of 1989, requiring diversion of solid waste from landfills through reuse and recycling. The project would be required to recycle during its operation. As previously discussed, any recyclable materials would be segregated and sent to recycling facilities permitted to recycle the materials. Materials that cannot be recycled would be sent to disposal facilities licensed to accept the solid waste.

Finding

Project-related impacts regarding compliance with solid waste regulations would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative developments within the urban and developed areas of the City that are served by the JWPCP or LBRP would consist of infill and redevelopment projects. Cumulative development could also include industrial uses that could include similar uses to those that would be implemented by the proposed project. These similar land uses are not expected to discharge wastewater that contains harmful levels of toxins beyond the regulations of the LARWQCB, and all effluent would comply with the wastewater treatment standards of the RWQCB. Similar to the proposed project, industrial facilities that have the potential to discharge hazardous wastewater would require specific permitting by the RWQCB prior to connecting to the sewer system, which would ensure that flows are within the regulations of the LARWQCB. Therefore, impacts

related to the potential for cumulative projects to exceed wastewater treatment requirements of the LARQCB would be less than significant.

Implementation of the proposed project would not generate wastewater that contains harmful levels of toxins and all effluent would comply with the wastewater treatment standards of the LARWQCB. Therefore, the project would not generate wastewater that could combine with wastewater from related projects to result in an exceedance of the LARWQCB regulations. The project would result in a less than cumulatively considerable impact to wastewater treatment requirements of the LARWQCB (less than significant).

Cumulative projects in the area would result in the need for new or upgraded water infrastructure. The construction activities associated with new or upgraded water facilities, if needed in by future cumulative projects, would be analyzed at such time discretionary approvals for those projects are considered. The proposed project has evaluated infrastructure needs for its water service and has included connections to existing water service pipelines to ensure that implementation of the project would be served by adequate infrastructure. Because the project would not require the construction of water facilities beyond the improvements that are part of the project, the project would not have a cumulatively considerable contribution to potential significant cumulative impacts associated with water infrastructure (less than significant).

The proposed project would reduce the volume of wastewater sent to the sewer system. Therefore, the project would not have a cumulatively considerable contribution to potential significant cumulative impacts associated with wastewater infrastructure (less than significant).

Groundwater rights are adjudicated in the Basin, which has regulated groundwater supplies. Management of the adjudicated Basin and the prescriptive allowable pumping rights for LBWD and other agencies that access the groundwater basin reduces the potential of incremental increases to groundwater pumping that could result in a cumulatively considerable impact on the groundwater supplies. In addition, every water purveyor provides projections for water supply and demand through 2040 that includes imported water and recycled water sources. By using SCAG growth projections, each water supply agency within the project area should adequately be able to monitor supplies and plan accordingly. As a result, cumulative development would result in less than significant cumulative impacts to water supply. Because the proposed project as well as cumulative projects would result in less than significant impacts, the implementation of the proposed project would not result in cumulatively considerable impacts to water supply (less than significant).

Because the cumulative area is urban, developed, and is generally covered with impervious surfaces, development of cumulative projects would not result in a substantial increase in impervious surfaces in the area or substantially increase stormwater and runoff flows through the stormwater drainage system. In accordance with state and regional MS4, LID, and County SUSWMP regulations, projects are required to maintain pre-project hydrology, such that no net increase of off-site stormwater flows would occur. City of Long Beach MS4 Permit conditions require a hydrology/drainage study to demonstrate that all runoff would be appropriately conveyed and not leave the project site at rates exceeding pre-project conditions, prior to receipt of necessary permits. As a result, increases of runoff from cumulative projects that could cumulatively combine to impact stormwater drainage capacity would be less than cumulatively significant (less than significant).

Areas surrounding the project area are generally covered with impervious surfaces and development of cumulative projects would not substantially increase the amount of impervious surfaces and runoff, such that

existing storm drains would be overwhelmed because all development projects would be required to comply with the same SUSWMP, LID, and RWQCB permit requirements to retain the difference between the volume pre- and post-construction runoff volume. In addition, implementation of the proposed project would include installation of drainage inlets that lead to bioretention BMPs. The drainage facilities would help to capture, retain, and utilize some surface water runoff, which would reduce the amount of surface runoff in the storm drains. Overall, with implementation of new drainage/bioretention BMPs and compliance with applicable regulatory requirements, the project's contribution to cumulative impacts related to stormwater drainage capacity would be less than cumulatively considerable (less than significant).

The geographic scope of cumulative analysis for landfill capacity is the service area for the Olinda Alpha Landfill, Frank R. Bowerman Landfill, El Sobrante Landfill, Waste Management Simi Landfill, Azusa Land Reclamation, and Kettleman Landfill, which serve the project area. These five landfills are projected to remain open until about 2030 to up to 2053. The lifespan of these landfills include the existing and projected solid waste that is anticipated from the growth in the County. As a result, impacts from future growth on landfill capacity would be less than cumulatively significant. Although the proposed project would contribute solid waste to the landfills, the addition of up to approximately 103 tons of demolition and construction solid waste and 13 tons of operational solid waste per year would not substantially impact the permitted capacity of the landfills. The increase in solid waste from operation of the proposed project in combination with planned growth within the County would not require construction of a new landfill or expansion of the existing landfill to meet capacity needs. Additionally, disposal of solid waste generated by cumulative development would be subject to the requirements set forth in AB 939, AB 341, and the policies within the Los Angeles County Integrated Waste Management Plan. As a result, the project's contribution to cumulative impacts on the capacities of the landfill facilities would be less than cumulatively considerable and cumulative development would result in no impacts to solid waste statutes and regulations (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.15 Energy Consumption

Impact EN-2: The project would not increase demand on local and regional energy supplies, resulting in the need for additional capacity.

Construction and operation of the project would require energy primarily for the use of off-road equipment, on-road trucks and vehicles, and operations of the visitors center and Pumpkin Patch and LCWA sites. The estimated fuel consumption for the project would require a very small fraction of the state's annual fuel usage.

While construction and operation of the project would result in an increase in fuel demand as compared to existing conditions, according to the USEIA International Energy Outlook 2016, the global supply of crude oil, other liquid hydrocarbons, and biofuels is expected to be adequate to meet the world's demand for liquid fuels through 2040 (USEIA 2016e). As of December 31, 2015, California had approximately 2,333 million barrels (approximately 98.0 trillion gallons) of crude oil left in the State's reserves (USEIA 2017a). The project's fuel demand would not represent a substantial fraction of the available energy supply in terms of equipment and transportation fuels and would not substantially affect existing local and regional supply and capacity for the

foreseeable future. Furthermore, construction and operation of the project would use equipment that would be consistent with the energy standards applicable to heavy-duty equipment including limiting idling fuel consumption and utilizing fuel-efficient heavy-duty equipment that meet the stringent Tier 4 standards that reduce emissions and fuel consumption. The turbines and microgrid system means that the project would provide almost all of its own electricity and, therefore, would avoid capacity impacts on local or regional energy suppliers. The limited amount of power not generated by the turbines would be supplied by SCE and would be fraction of SCE's and the State's total usage. The project would provide crude oil supplies to refineries in the region thus providing net additional oil energy supplies.

Finding

Construction and operational energy impacts on supplies and infrastructure would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

The State has adopted numerous regulations to improve energy efficiency from all sectors of the economy including the transportation sector. Transportation energy end-users would be required to utilize vehicles that meet increasingly stringent fuel economy standards. In addition, the State has promulgated measures, such as the anti-idling measure and emissions standards for off-road equipment and on-road vehicles and trucks. Other individual projects located within the State would be required to comply with these regulations. Compliance with these regulations would ensure cumulative projects achieve improved energy efficiency, minimize the wasteful and inefficient use of energy, and not create substantial additional demand for energy beyond the demand that is already planned for as a result of general growth in the State's population and economy. As a result, cumulative impacts would be less than significant.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.4 Findings on Impacts Mitigated to Less than Significant

The following summary describes impacts of the proposed project that, without mitigation, would result in significant impacts. Upon implementation of the mitigation measures provided in the Draft EIR, these impacts would be less than significant.

2.4.1 Aesthetics

Impact AES-3: The project would not result in substantial degradation of the visual character or quality of the site.

Construction

Construction activities would temporarily alter the general character and quality of the project sites. For the City Property site, the only public views of the City Property site are from the San Gabriel River Bike Trail and 2nd Street and, given the broad size of the City Property site, much of the construction activities would be shielded from view. Mitigation Measure AES-1, below, would serve to relieve the visual distractions typically

associated with construction activities and commonly encountered in developed areas, particularly during excavation and foundation construction. This mitigation would also serve to reduce the potential for construction equipment traveling along local roadways and inadvertently depositing dirt and debris on the streets by requiring the staging of all construction equipment on the project sites and reducing the amount of mud and debris that leaves the sites.

Operation

Development of the proposed project would change views from public viewpoints; however, a majority of the viewpoints would be enhanced by the proposed project, and the overall visual character and quality of the site would increase with the restoration of native vegetation and wetland habitat and consolidation of oil production facilities. In order to minimize noise and visual impacts during drilling, the drilling rig on the Pumpkin Patch and LCWA sites would be enclosed in a camouflaged sound-abatement shell.

Synergy Oil Field Site

View 1: View from Pacific Coast Highway Looking Northeast toward the Synergy Oil Field Site

Over time as non-native plants, aboveground pipelines, tanks, and wells are removed a broader panoramic view of the surrounding area would be visible from PCH. Views of the restored wetlands and associated vegetation would replace existing views of non-native palm trees and oil wells and pumps located on the Synergy Oil Field site. Therefore, the proposed project would improve views of the surrounding areas. The proposed project would not alter or degrade the scenic quality of the view; instead it would enhance the quality and character of the project site as seen from PCH looking east.

View 2a: View from 2nd Street Looking North toward the Synergy Oil Field Site

Over time the aboveground pipelines, powerlines, and non-native vegetation would be removed and oil field production equipment would be plugged and abandoned or removed. The Bixby Ranch Field Office building would be relocated and raised, a surface parking lot, an overlook terrace with picnic facilities, and a trail would be constructed, and native trees and other native vegetation would be planted. The changes proposed as a part of the project would serve to enhance the scenic value and views of the Los Cerritos Wetland complex and would improve the visual character and quality of the project site.

View 2b: View from 2nd Street Looking North toward the Synergy Oil Field Site

The Bixby Ranch Field Office structure would be relocated as the visitors center and raised 5 feet to the middle ground of the viewpoint. There would be a parking lot and roadway to the left of the visitors center that would blend in with the natural landscaping of the site. Thus, the changes proposed as a part of the project would serve to enhance the scenic value and views of the Los Cerritos Wetland complex and would improve the visual character and quality of the project site.

View 3: View from Studebaker Road Looking West toward the Synergy Oil Field Site

Over time, existing non-native, invasive vegetation would be removed, native species would be planted, and wetland habitats would be restored, which would increase the quality of the scenic vista as seen from Studebaker Road and restore and enhance the visual character and quality of the Los Cerritos Wetland complex.

View 4: View from Loynes Drive Looking South toward the Synergy Oil Field Site

Over time, the non-native vegetation and chain link fence that borders the northern boundary of the site would be removed and planted native vegetation and wetland habitat would grow which would serve to enhance the existing scenic views of this portion of the Los Cerritos Wetland complex.

LCWA Site

Views 5 and 6: View from Studebaker Road Looking East toward the LCWA Site and View from Westminster Avenue (2nd Street) Looking North toward the LCWA Site

The proposed project would introduce streetscape and landscape features, including the introduction of a pedestrian sidewalk around the site, streetscape planting, and a new block wall around the perimeter of the LCWA site. The streetscape planting would, over time, provide a natural buffer and obscure views of the block wall. The proposed streetscape improvements would be the prominent focal point and would be visible to travelers on Studebaker Road and Westminster Avenue. The motorists' sensitivity to change in the viewshed is considered low to moderate. Compared to existing conditions, project implementation would enhance the visual quality of the LCWA site from viewers traveling along Studebaker Road and Westminster Avenue. In order to minimize noise and visual impacts during drilling, the 160-foot drilling rig that would move from well to well would be enclosed in a camouflaged sound-abatement shell. Occasionally, a 120-foot workover rig may be utilized on site as required for well maintenance. The collapsible workover rig would be stored on site and would only be visible to the public when in use. When visible, the view of the 120-foot workover rig would not substantially degrade the overall aesthetic character or quality of this viewshed.

City Property Site

View 7: View from 2nd Street Looking South toward the City Property Site

Over time, the pipeline infrastructure and non-native vegetation would be removed, oil wells and related infrastructure would be plugged and abandoned and/or removed, and areas would be remediated and/or revegetated. Overall, the City Property site would appear less developed the visual character and quality of the site would improve.

Pumpkin Patch Site

View 8: View from the San Gabriel River Bike Trail Looking Northwest toward the Pumpkin Patch Site

Views of the San Gabriel River in the foreground would not change with implementation of the proposed project. Additionally, a wall and landscape buffer would replace views of non-native habitat and existing structures in the middle ground. Overall, development on the Pumpkin Patch site would generally be consistent with the existing character of the site and its surroundings.

Views 9 and 10: View from Pacific Coast Highway Looking East and Looking North toward the Pumpkin Patch Site

Views from this vantage would include a view of a two-story office building and a warehouse in the distance, associated surface parking lot, streetscape planting along the eastern side of PCH, and an 18-foot-high screening wall, which would be hidden from view by landscaping on either side of the office building. The view looking north would also include a view of an entry monument welcoming visitors to the city. The warehouse would be buffered from the street by an approximately 30 feet wide vegetation buffer of trees and

shrubs. The office building and adjacent warehouse would consist of modern architecture, utilizing contemporary architectural materials. While implementation of the proposed project would obscure potential views from this vantage point, there are no significant scenic vistas in the background that would be substantially impacted. Furthermore, this type of development would be consistent with the commercial development that abuts the site to the north. Similar to the LCWA site, the 160-foot drilling rig would be enclosed in a camouflaged sound-abatement shell and a 120-foot-high workover rig may be utilized as required for well maintenance. The collapsible workover rig would be stored on site and would only be visible to the public when in use.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure AES-1: Construction contractors shall be required to strictly control the staging and cleanliness of construction equipment stored on the project site. Staging areas shall be screened from view at street level with solid wood fencing or green fence. Prior to the issuance of a building permit, the Applicant shall submit a Construction Staging, Access, and Parking Plan to the City of Long Beach Planning and Development Services Department for review and approval. Construction workers would be required to park on the Synergy Oil Field site and would be bussed to their respective construction site. Construction worker vehicles and work vehicles shall be kept clean and free of mud and dust before leaving the project site. Project contractors shall be required to sweep surrounding streets used for construction access on a daily basis to keep them free of construction-related dirt and debris.

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.1-38. This change is identified in the form of mitigation measure AES-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact AES-4: The project would not create a new source of substantial light or glare that would adversely affect day or night views in the area or that would substantially impact other people or properties.

Construction

Construction and restoration activities associated with the proposed project would create new sources of light or glare, as lighting would be used during early morning and evening work activities. Construction activities on the project site would occur between 7:00 a.m. and 7:00 p.m. and in compliance with LBMC Section 8.8.202, Construction Noise Regulations. Thus, construction lighting would be limited to a few hours a day, with most lighting use occurring during hours when the project site is partially lighted by natural dawn or dusk conditions. A minimal amount of glare could result from reflection of sunlight off windows of trucks, but this would be negligible and would not affect daytime views in the area given that there are no light-sensitive uses near the project site. Construction lighting would be aimed toward the activity and would be mostly contained within the area where work would be occurring; however, construction lighting still could result in substantial light and glare during the evening on areas with direct views of the site if lighting is not controlled and directed appropriately.

Security lighting would be provided from dusk to dawn on all construction sites, but this lighting would be minimal, restricted to the project site, and would not exceed the level of existing night lighting levels in urban areas. Mitigation Measures AES-2 would also ensure that security lighting does not pose undue light and/or glare.

Operation

The proposed project would introduce new light sources associated with security, safety, and wayfinding. While the proposed project would introduce new sources of light, it should be noted that the four individual sites that comprise the project site are located in an urban environment. Thus, lighting is not unusual in the project vicinity. Nevertheless, in compliance with the standards set forth in the SEADIP (PD-1), all lighting would be directed downward and exterior lighting would be designed and located in such a way that it does not project off site or onto adjacent uses. Automatic timers would be programmed to maximize personal safety at night while conserving energy and would be reset seasonally to match the flux of dusk and dawn. In addition, the proposed project would be required to comply with LBMC Section 21.41.259, which requires that all parking area lighting be directed and shielded to prevent light spillover to adjacent properties. Compliance with these standards would be implemented through the City's development review and building plan check process and would ensure that impacts from light and glare are reduced to a less-than-significant level.

Mitigation Measure

The following mitigation measure is included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure AES-2: Lighting Plan. Prior to issuance of a grading permit for each site, a Lighting Plan for the site shall be developed and submitted to the City of Long Beach that requires all exterior lighting to be directed downward and focused away from adjacent sensitive uses and habitats to encourage wayfinding and provide security and safety for individuals walking to and from parking areas and working at the oil facilities on the Pumpkin Patch site and the LCWA site. Compliance with the approved Lighting Plan shall be implemented through the City's development review and building plan check process.

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.1-39. This change is identified in the form of mitigation measure AES-2. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Cumulative Impacts

Scenic vistas considered in this analysis include the Los Cerritos Wetlands complex, Steamshovel Slough, Los Cerritos Channel, San Gabriel River, and the San Gabriel Mountains. Construction of the proposed project would not have an adverse effect on any of the scenic vistas. No projects have been identified adjacent to the project site that would cumulatively combine to have a substantial adverse effect on a scenic vista during construction activities. Thus, cumulative impacts on the identified scenic vistas would be less than significant.

PCH has been identified by Caltrans as an “Eligible State Scenic Highway,” but has not been designated as an Official State or County Scenic Highway (Caltrans 2016). Both the Synergy Oil Field and Pumpkin Patch sites are visible from PCH; however, given the disturbed and undeveloped nature of the Pumpkin Patch site, there are no scenic resources on the site and the scenic resources identified on the Synergy Oil Field site (Bixby Ranch Field Office, Steamshovel Slough, and the remaining wetland areas north of the slough) are not visible from PCH. Thus, the proposed project would not result in construction impacts on scenic resources within a scenic highway. No projects have been identified adjacent to either the Synergy Oil Field or Pumpkin Patch site that would cumulatively combine to have a substantial adverse effect on a scenic resource within a scenic highway during construction activities. Thus, cumulative impacts on scenic resources within a designated scenic highway during construction would be less than significant.

While construction activities would alter the general character and quality of the project site, Mitigation Measure AES-1 would serve to relieve the visual distractions typically associated with construction activities and would reduce the potential for construction related dirt and debris on nearby roadways. With implementation of this mitigation measure, the proposed project’s visual character impacts would be reduced to a less than significant level. No projects have been identified adjacent to the project site that would cumulatively combine to substantially degrade the visual character and quality of the project site during construction activities. Thus, cumulative impacts on visual character and quality of the project site during construction would be less than significant.

While the proposed project would create new sources of light and glare during construction activities, it would be required to comply with LBMC Section 8.8.202, Construction Noise Regulations, which would limit the hours of construction to primarily daytime hours. Thus, light and glare impacts from the proposed project during construction would be less than significant. No projects have been identified adjacent to the project site that would cumulatively combine to result in lighting impacts during construction activities. Thus, light and glare cumulative impacts during construction would be less than significant.

During operation of the proposed project, existing oil production facilities and invasive species would be removed and native vegetation and wetland areas would be restored on the Synergy Oil Field and City Property sites and oil production facilities would be consolidated onto the Pumpkin Patch and LCWA sites. Overall these activities would not obstruct any of the scenic vistas and would likely enhance the scenic vista of the Los Cerritos Wetlands complex. Thus, impacts on scenic vistas on the project site during operation would be less than significant. No projects have been identified adjacent to the project site that would cumulatively combine to have a substantial adverse effect on a scenic vista during operational activities. Thus, cumulative impacts on the identified scenic vistas would be less than significant.

PCH has been identified as a state- and county-eligible scenic highway and both the Synergy Oil Field and Pumpkin Patch sites are visible from PCH. Given that no scenic resources have been identified that would be visible from PCH, the proposed project would not result in operational impacts on scenic resources within a scenic highway. No projects have been identified adjacent to the Synergy Oil Field or Pumpkin Patch sites that would cumulatively combine to have a substantial adverse effect on a scenic resource within a scenic highway during operation. Thus, cumulative impacts on scenic resources within a designated scenic highway during operation would be less than significant.

Development of the proposed project would change views from public viewpoints; however, a majority of the viewpoints would be enhanced by the proposed project, and the overall visual character and quality of the

project site would increase with the restoration of native vegetation and wetland habitat and consolidation of oil production facilities and, thus, the proposed project would not degrade the existing visual character or quality of the project site or its surroundings, and impacts would be less than significant. No projects have been identified adjacent to the project site that would cumulatively combine to substantially degrade the visual character and quality of the project site during operation. Thus, cumulative impacts on visual character and quality of the project site during operation would be less than significant.

While the proposed project would introduce new sources of light associated with security, safety, and wayfinding, it should be noted that the four individual sites that comprise the project site are located in an urban environment. Thus, lighting is not unusual in the project vicinity. In addition, the proposed project would be required to comply with SEADIP (PD-1), which requires all lighting to be directed downward and designed not to project off site or onto adjacent uses, and LBMC Section 21.41.259, which requires that all parking area lighting be directed and shielded to prevent light spillover to adjacent properties. Compliance with these standards would ensure that impacts from light and glare are reduced to a less than significant level. No projects have been identified adjacent to the project site that would cumulatively combine to result in lighting impacts during operation. Thus, the proposed project would not cumulatively combine to result in light and glare impacts and would be less than significant.

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the project's contribution to the significant cumulative environmental effects, which are identified and described on Draft EIR pp. 3.1-39 to 3.1-41. This change is identified in the form of mitigation measures AES-1 and AES-2. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.2 Air Quality

Impact AQ-2b: The project would not violate the air quality standard and contribute substantially to an existing or projected air quality violation for operational-related NO_x emissions.

Operation

Emissions from operational activities would occur at various sites and during various phases of the proposed project. The Pumpkin Patch site would generate emissions primarily from vehicle travel, natural gas for space heating, and a diesel-powered drilling rig. Most of the site's electricity would be generated by the turbines located at the LCWA site. One drilling rig would be operated at both the LCWA and Pumpkin Patch sites but would be electrically powered. Additionally, both sites would have diesel-powered workover drilling rigs that would operate during the daytime hours for approximately 50 hours per week.

There would be four turbines at the LCWA site to combust natural gas (which is naturally co-located with crude oil deposits) to produce electricity. The turbines are expected to provide the majority of energy to the Pumpkin Patch and LCWA sites with occasional support from the Southern California Edison (SCE) grid. The office and visitors center at the Synergy Oil Field site would generate emissions mainly from vehicle travel and natural gas for heating. All sites would be subject to routine painting (i.e., for maintenance, etc.) that would also contribute to VOC emissions.

The change in project emissions would be below the SCAQMD thresholds for all pollutants except regional operational NO_x emissions. The primary emission source for this pollutant would be the turbines. The diesel drilling rigs at the Pumpkin Patch and LCWA sites would be secondary contributors. Mitigation Measure AQ-3 requires the use of diesel-powered drilling rigs that meet the most stringent emissions standards for off-road equipment. With implementation of this measure, the NO_x emissions for operations would be reduced to below the operational regional NO_x threshold.

Mitigation Measure

The following mitigation measure is included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure AQ-3: Operational NO_x Reduction Measures. Require all diesel-powered drilling rigs located at the Pumpkin Patch and LCWA sites to comply with EPA-certified Tier IV emission controls. This drilling rig equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.2-28. This change is identified in the form of Mitigation Measure AQ-3. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact AQ-3b: The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) during operations.

Operation

The project area is located within the SCAB, which is currently classified as nonattainment area for ozone, PM₁₀, and PM_{2.5}. Based on SCAQMD's cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants (VOC, CO, NO_x, SO_x, PM₁₀, and PM_{2.5}) that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard.

The proposed project would exceed regional significance thresholds for operational-related NO_x emissions. Implementation of Mitigation Measure AQ-3 would reduce operational-related NO_x emissions to below the threshold.

Mitigation Measure

The following mitigation measure is included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure AQ-3.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.2-30. This change is identified in the form of Mitigation Measure AQ-3. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact AQ-4: The project would not expose sensitive receptors to substantial pollutant concentrations in excess of the localized significance thresholds and would not result in CO hotspot impacts.

Construction

Localized Construction Air Quality Impacts—Criteria Air Pollutants

The localized impacts of the project were assessed using the SCAQMD's methodology and LSTs. The nearest sensitive receptors were identified and impacts were analyzed based on the receptor's distance from the source and size (in acres) of the proposed project area. Of the four sites, the Synergy Oil Field and Pumpkin Patch sites represent the worst-case emissions scenarios for the proposed project and were, therefore, the sites analyzed using LSTs. The Synergy Oil Field site is the closest site to any sensitive receptor and, together, the Synergy Oil Field and Pumpkin Patch sites account for the greatest levels of construction and operational activity. The on-site construction emissions generated by the proposed project would not exceed the applicable SCAQMD LSTs for NO_x, CO, PM₁₀, or PM_{2.5}. Therefore, construction of the project would not expose sensitive receptors to substantial criteria pollutant concentrations.

Operation

Operational LSTs, like construction LSTs, are evaluated for the on-site emissions of NO_x, CO, PM₁₀, and PM_{2.5} from stationary, area, and energy sources, such as building heating and cooling units, landscaping equipment and consumer products. The primary source of emissions generated from operation of the proposed facilities would be from the turbines located on the LCWA site. Furthermore, localized air impacts were analyzed at the LCWA site because its emissions represent the overwhelming majority of operational emissions between the four individual sites. The LCWA effectively represents the worst-case scenario of operational emissions on any given day. The on-site operational emissions generated at the LCWA site would not exceed the SCAQMD's LSTs for the criteria pollutants studied.

CO Hotspots

A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. Projects may worsen air quality if they increase the percentage of vehicles in cold start modes; significantly increase traffic volumes; or worsen traffic flow. While construction-related traffic on the local roadways would occur during construction, the net increase of construction worker vehicle trips to the existing daily traffic volumes on the local roadways would be relatively small and would not result in CO hotspots. Additionally, the construction-related vehicle trips would only occur in the short term, and would cease once construction activities have been completed.

During operation, truck trips would occur to transport crude oil from the site to off-site refinery locations. Worker trips and visitors would also travel to and from the site; however, the number of trips would not be

expected to cause a substantial change in traffic flow. Furthermore, CO concentrations in the project area are relatively low. Project construction or operation would not generate sufficient traffic to cause a substantial change in the CO levels.

Toxic Air Contaminants

The purpose of conducting a health risk assessment is to determine whether a significant health risk impact would result from continued exposure to toxic air contaminant (TAC) emissions emitted during project construction and operation. TAC emissions would be emitted from various sources throughout construction and operation of the project, as described in further detail below.

Construction Health Impacts

Removal of the existing facilities and construction of the new facilities would expose members of the public to diesel exhaust, which contains a variety of gaseous and solid particulate chemical compounds, many of which have been identified by CARB as TACs. During construction, diesel exhaust would be generated by off-road diesel-powered equipment, such as loaders, drill rigs, dozers, rollers, backhoes, forklifts, etc. and by on-road heavy duty hauling trucks traveling to and from the site. Of the TACs found in diesel exhaust, the primary TAC of concern is DPM, which is generated from the combustion of diesel fuel.

Operational Health Impacts

Project operations would also produce harmful emissions of TACs, which may adversely impact the health of the surrounding communities. Unlike project construction, toxic emissions associated with future operations of the project are not exclusively limited to diesel exhaust emissions. Rather, toxic emissions associated with future operations would vary based on the emission source, details of which are described in further detail below.

Turbines

The project proposes to install four gas-powered turbines to generate electricity on site, which can result in hazardous air pollutant (HAP) emissions such as formaldehyde, acetaldehyde, and benzene that can contribute to increased cancer and non-cancer risks; however, the project applicant proposes, as part of the project design, to install a CO oxidation catalyst on the turbines to reduce these harmful pollutant emissions. Formaldehyde is the most significant HAP emitted from combustion turbines and accounts for about two-thirds of the HAP emissions.

Drilling and Workover Rigs

Well stimulation activities, including the use of drill rigs and workover rigs, also produce emissions of TACs. Specifically, the use of drilling and workover rigs would generate emissions of Diesel Particulate Matter (DPM), formaldehyde, benzene, and 1,3-butadiene, which are all known TACs. Diesel-powered workover drilling rigs on the Pumpkin Patch and LCWA sites would be in operation periodically, and would contribute to the project's health risk impact.

Fugitive Emission Sources

Fugitive emissions from pipes, storage tanks, and process losses would also contribute to the project's TAC emissions. The TACs of concern from fugitive emission sources include benzene, toluene, ethyl benzene, xylene, and hexane; however, tanks at both Pumpkin Patch and LCWA sites would be fixed-roof gas blanket

design, and are designed to be both liquid- and vapor-tight, thus reducing the fugitive TAC emissions emitted by these tanks.

Off-Road Equipment and On-Road Mobile Sources

Finally, the use of on-site equipment and mobile sources, including heavy-duty diesel trucks visiting the site, would also generate emissions of DPM, which is the primary TAC found in diesel exhaust. During operation, diesel exhaust would be generated by off-road diesel-powered equipment and by on-road heavy duty hauling trucks traveling to and from the site.

Health Risk Assessment Results

Health Risk for Existing Emissions

Of the 53 wells on the Synergy Oil Field, City Property, and Pumpkin Patch sites, there are approximately 33 wells currently in production. A minimal amount of TAC emissions is generated by the operation of these wells, including DPM and VOC emissions associated with diesel workover rigs, oil truck trips, and employee travel. The operation of these existing oil wells have a combined health risk impact of approximately 92.8 in one million once the proposed project has a certified EIR and has received the necessary building permits to begin construction of the new oil facilities, the project would reduce current operations and oil production of these 53 existing wells by 75 percent to facilitate their removal. Therefore, by reducing existing oil production by 75 percent once the first building permits are issued and eventually plugging and abandoning all existing wells over a period of 40 years, implementation of the project would substantially reduce the health risk impact to nearby sensitive receptors.

Health Risk for Unmitigated Future Emissions

Overall, the worst-case health risk associated with project construction and operation exceeds the applicable health risk criteria for infant, child, adult, and lifetime cancer risk of 10 per one million. The cancer burden associated with future project emissions was calculated to be 0.958, which exceeds the SCAQMD significance threshold of 0.50.

Based on the health risk assessment modeling results, health risks would be considered potentially significant. Sources that contribute the greatest to high health risk levels mainly include diesel engines associated with short-term construction equipment and on-road hauling trucks.

Mitigation measures have been identified as part of the AQ Assessment for both short-term (construction) and long-term (operational) impacts. Mitigation Measures AQ-2 and AQ-3 would reduce NO_x emissions and effectively reduce emissions of DPM and other TACs emitted during project construction and operations, respectively. In order to reach acceptable levels of public health risk, Mitigation Measure AQ-2 must be applied to each phase of construction and Mitigation Measure AQ-3 must be applied to drilling operations.

The health risk associated with project construction and operations, when these mitigation measures are implemented, are all well below the applicable health risk criteria for infant, child, adult, and lifetime risk at the Maximum Exposed Individual Resident (MEIR).

With implementation of the mitigation measures listed above, the project's lifetime maximum individual cancer risk (MICR) of 7.50 in one million would be reduced to below the significance threshold of 10 in one million. Additionally, the chronic and acute non-cancer risks are below the significance threshold of 1.

The mitigated cancer burden associated with future project emissions was calculated to be 0.004, which is well below the SCAQMD significance threshold of 0.50.

Mitigation Measures

The following mitigation measures are included in the Draft EIR and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure AQ-2: Construction NO_x Reduction Measures. The Applicant for the proposed project shall be responsible for the implementation of the following construction-related NO_x reduction measures:

- Require all off-road diesel-powered construction equipment greater than 50 hp (e.g., excavators, graders, dozers, scrapers, tractors, loaders, etc.) to comply with EPA-Certified Tier IV emission controls where commercially available. Documentation of all off-road diesel equipment used for this project, including Tier IV certification, or lack of commercial availability if applicable, shall be maintained and made available by the contractor to the City for inspection upon request. In addition, all construction equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB such as certified Level 3 Diesel Particulate Filter or equivalent. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. If Tier IV vehicles and construction equipment is not available, the City shall require the contractor to implement other feasible alternative measures, such as reducing the number and/or hp rating of construction equipment, and/or limiting the number of individual construction phases occurring simultaneously. The determination shall be made by the City prior to issuance of grading or building permits where evidence of the use of Tier IV equipment is not provided.
- Eliminate the use of all portable generators. Require the use of electricity from power poles rather than temporary diesel or gasoline power generators.
- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow, including during the transportation of oversized equipment vehicles.
- Provide dedicated turn lanes for movement of construction trucks and equipment on and off site. The location of these dedicated lanes shall be addressed in the Construction Trip Management Plan.
- Reroute construction trucks away from congested streets or sensitive receptor areas.
- Limited idling time to 5 minutes for both on-road trucks and off-road equipment.

Mitigation Measure AQ-3: Operational NO_x Reduction Measures. Require all diesel-powered drilling rigs located at the Pumpkin Patch and LCWA sites to comply with EPA-certified Tier IV emission controls. This drilling rig equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB.

Mitigation Measure AQ-4: Technology Review. To promote new emission control technologies, every five years following the Project approval date, the Lead Agency shall conduct a review of new air quality technological advancements. These technologies would be evaluated based on operational feasibility, technical feasibility, and cost effectiveness and financial feasibility for application. If a technology is determined to be feasible in terms of financial, technical, and operational feasibility, the Lead Agency shall identify as mitigation in any subsequent CEQA document prepared for a subsequent

discretionary construction permit to implement such technology, subject to the requirements as set forth in the *CEQA Guidelines* Section 15162(a)(3)(C).

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.2-37. These changes are identified in the form of Mitigation Measures AQ-2, AQ-3, and AQ-4. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Impact AQ-5: The project would not create objectionable odors affecting a substantial number of people.

Construction

During the construction of the project, exhaust from construction equipment may produce discernible odors typical of most construction sites; however, such odors would be temporary. The proposed project would comply with the applicable provisions of the CARB ATCM regarding idling limitations for diesel trucks. Construction of the project would require the use of architectural coatings. Implementation of Mitigation Measure AQ-1 would minimize VOC emissions to a less-than-significant level. In addition, Mitigation Measure AQ-2 would minimize diesel emissions. Through mandatory compliance with SCAQMD rules and implementation of Mitigation Measures AQ-1 and AQ-2, construction activities are not expected to create objectionable odors affecting a substantial number of people.

Operation

Odors are considered significant if they produce a nuisance. The determination of a significant odor impact is based on creating a nuisance per SCQMD Rule 402. The SCAQMD has an established Public Nuisance Investigation Policies and Procedures to guide the SCAQMD inspectors in determining whether to issue a Notice of Violation (NOV) for a nuisance. The procedures direct SCAQMD investigators to interview complainants and observe, identify, or otherwise establish evidence odorous emissions. An NOV is issued if a "multiple complaint condition" is documented, defined as six or more complainants.

Odor complaints are expected not to be an issue with the proposed facilities. The oil production facilities that are being replaced are old with minimal emission controls at well heads, flanges, pumps, and other equipment that has seen many years of use. The proposed facility would use new equipment that must meet all of the latest SCAQMD regulations. Second, the Pumpkin Patch and LCWA sites are located at some distance from residential areas and are separated from residential areas with either other industrial development or arterials. This distance and the intervening uses help to disperse any odorous material that might accidentally be released from the facility. Finally, the facilities must comply with SCAQMD Rule 402, which requires that the facilities cannot be a nuisance and must modify operations to comply.

Mitigation Measures

The following mitigation measures are included in the Draft EIR and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure AQ-1: Construction-Period Use of Low-VOC Paints. The Applicant for the proposed project shall be responsible for the use of SCAQMD Rule 1113-compliant paints with a VOC content of 50 grams per liter or less.

Refer to Mitigation Measure AQ-2.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.2-39. These changes are identified in the form of Mitigation Measures AQ-1 and AQ-2. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.3 Biological Resources

Impact BIO-1: The project would not have a substantial adverse effect, either directly or through habitat modifications, on southern tarplant, estuary seablite and woolly seablite, which are special-status plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Construction

Southern tarplant, a special-status plant, is located within the proposed restoration and improvement areas on the Synergy Oil Field and Pumpkin Patch sites and, therefore, would likely be disturbed. Southern tarplant is also present on the City Property site in areas that would be improved by the project and likely to be disturbed. Implementation of Mitigation Measures BIO-1 and BIO-2 would reduce impacts to southern tarplant to a less-than-significant level by requiring avoidance of special-status plants, and restoration of any impacts to southern tarplant, respectively. Estuary seablite and woolly seablite are present on the Synergy Oil Field site and would be avoided.

The LCWA site does not have habitat that supports potentially-occurring special-status plants; therefore, there would not be any impacts to special-status plants associated with the portion of the proposed project that is on the LCWA site.

Operations

Following the completion of project construction activities, well plugging and abandonment or trail maintenance activities (such as the establishment and maintenance of a buffer zone between the trail and upper edge of restored habitats) could result in an adverse indirect impact to special-status plants such as the introduction or spread of weeds. In addition, improper installation or maintenance of fencing, or improper habitat restoration signage that would otherwise restrict people to the trail could result in adverse direct impacts to restored habitats and special-status plants. The direct and indirect impacts caused by these activities

could be significant, but would be reduced through implementation of Mitigation Measure BIO-2, which addresses weed management and maintenance and monitoring procedures for southern tarplant restoration areas.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure BIO-1: Avoidance of Special-Status Plants. Prior to vegetation or ground disturbance, a qualified botanist/biologist shall flag special-status plants located within 25 feet of proposed disturbance areas on the project site including southern tarplant, estuary seablite, and woolly seablite. Individual plants shall be marked or flagged for avoidance and a minimum no-disturbance buffer of 10 feet shall be established. The appropriate buffer distance shall be determined by the qualified botanist/biologist. If southern tarplant plants cannot be avoided, Mitigation Measure BIO-2 shall be implemented.

Mitigation Measure BIO-2: Re-establish Southern Tarplant on Synergy Oil Field, City Property, and Pumpkin Patch Sites. Prior to any disturbance to special-status plants, a Southern Tarplant Restoration Plan shall be prepared and approved by CDFW. At a minimum, the Restoration Plan shall include the following:

- A map showing the areas to be restored following temporary impacts
- Weed management procedures to prevent introduction of invasive plant species on site prior to and during construction, and during maintenance
- Seed collection protocol
- Seed dispersal protocol
- Performance standards for the areas to be re-established
- Maintenance and monitoring procedures for the areas to be re-established
- Adaptive management strategies
- Reporting requirements

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.3-58 and 3.3-59. These changes are identified in the form of Mitigation Measures BIO-1 and BIO-2. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Impact BIO-2: The project would not have a substantial adverse effect, either directly or through habitat modifications, on any special-status wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Construction

Synergy Oil Field Site

Mudflat Tiger Beetle, Wandering Skipper, Sandy Beach Tiger Beetle, Senile Tiger Beetle, Western Beach Tiger Beetle, and Western Tidal-Flat Tiger Beetle

Grading associated with northern area restoration activities would result in direct temporary impacts to habitat for these species; however, given the limited area of impact and the extensive area of suitable habitat that would be preserved in Steamshovel Slough and other portions of the site, the proposed impacts to these species and their preferred habitat would not cause the local populations to drop below self-sustainable levels. Impacts would be less than significant following the implementation of Mitigation Measure BIO-3, which would require biological monitoring and avoidance or relocation of special-status invertebrates.

Pacific Green Sea Turtle

The westernmost portion of Steamshovel Slough has been identified as potential habitat for the Pacific green sea turtle. There is no potential for project activities to impact this species since there would be no impacts to Steamshovel Slough.

American Peregrine Falcon

The Synergy Oil Field site contains suitable foraging habitat for the peregrine falcon. Grading and restoration activities associated would be temporary and may temporarily prevent American peregrine falcons from foraging on the project site; however, the proposed project would improve the existing habitat conditions following the completion of construction and improve the long-term viability and extent of foraging habitat for this species. Therefore, impacts to peregrine falcon and its foraging habitat would be less than significant following the implementation of the proposed project.

Belding's Savannah Sparrow

Project grading and associated restoration activities within the northern area would result in potentially significant direct and indirect impacts on the Belding's savannah sparrow. Potential direct impacts include the permanent and temporary loss of vegetation used by Belding's savannah sparrow for nesting or foraging (occupied habitat); however, impacts would be less than significant with the implementation of Mitigation Measure BIO-4, which requires a minimum habitat replacement ratio of 1:1 (created:impacted) and Mitigation Measure BIO-5, which requires re-establishment of permanent and temporary impacts to sensitive natural communities.

Indirect impacts to Belding's savannah sparrow would include noise and dust generated during construction that could disrupt breeding or other essential activities during the breeding season (e.g., vocalizing to attract mates, foraging, etc.). With implementation of Mitigation Measure BIO-6 below, indirect impacts to nesting Belding's savannah sparrow would be mitigated to a less-than-significant level through avoidance of active bird nests.

The southern area does not support suitable breeding or foraging habitat for Belding's savannah sparrow; however, potential indirect impacts to the species during construction activities could disrupt breeding behavior, which would be mitigated to a level of less than significant with implementation of Mitigation Measure BIO-6 through avoidance of active bird nests.

Burrowing Owl

Potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. In accordance with Mitigation Measure BIO-7, potential impacts on burrowing owl would be less than significant through pre-construction surveys and specific avoidance measures.

Ridgway's Rail

Potential direct impacts could occur during the northern area activities should a Ridgway's rail occupy the site. In addition, indirect impacts on Ridgway's rail could occur through disruption of nesting or other essential behaviors from construction noise and dust. Potential impacts on light-footed clapper rail would be avoided and minimized through pre-construction nesting bird surveys and avoidance as identified in Mitigation Measure BIO-6.

California Least Tern, Merlin

Limited grading of the berm that demarcates the limits of Steamshovel Slough exhibits potential for affecting foraging activities for brief periods; however, given that expansive areas of foraging areas both on site and off site are available, such short-term and localized impacts would not be considered significant. Southern area activities exhibit no potential for impacts on foraging by Merlins.

Western Snowy Plover

Grading associated with northern area restoration activities would temporarily remove potential foraging habitat; however, given the limited area of impact and the extensive area of suitable habitat preserved, potential habitat impacts would be less than significant.

White-Tailed Kite and Northern Harrier (Nesting)

Grading or other restoration activities associated with northern or southern area activities could result in significant impacts on the white-tailed kite and/or northern harriers if these species were found to be nesting on site. Potential nesting impacts would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Nesting Birds and Migratory Bird Treaty Act Considerations

Each of the four individual sites contains vegetation, including trees, shrubs, and other low-growing vegetation that have the potential to support nesting birds. Impacts to migratory and resident nesting avian species are prohibited under the Migratory Bird Treaty Act (MBTA) and provisions of the California Fish and Game Code. Potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

South Coast Marsh Vole and Southern California Salt Marsh Shrew

Grading to remove portions of the berm during northern area restoration activities exhibits potential for limited impacts on this species; however, given the limited area of impact and the extensive area of suitable habitat

preserved in Steamshovel Slough, potential habitat impacts would not cause this species to drop below self-sustaining levels. Restoration activities would not be expected to result in the direct loss of individuals and the implementation of the project would improve the condition and extent of this species' preferred habitat following completion of the project. Implementation of Mitigation Measure BIO-3 would ensure that these mammals would be unharmed if encountered.

City Property Site

The following species exhibit no potential for occurring on the City Property site and would not be subject to potential project impacts:

- California least tern;
- Light-footed clapper rail;
- Western snowy plover;
- Belding's savannah sparrow;
- Mudflat tiger beetle;
- Sandy beach tiger beetle;
- Senile tiger beetle;
- Western beach tiger beetle; and
- Western tidal-flat tiger beetle.

The species with potential to occur are addressed below.

Wandering Skipper

Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure could result in injury or mortality of individuals. Implementation of Mitigation Measure BIO-3 would require avoidance or relocation of these invertebrates if encountered during biological monitoring.

American Peregrine Falcon

Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure would result in a nominal disturbance to potential foraging habitat considering the amount of suitable habitat present in the immediate vicinity.

Burrowing Owl

Potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. Potential impacts on burrowing owl would be mitigated through pre-construction surveys and associated avoidance as required under Mitigation Measure BIO-7.

White-Tailed Kite and Northern Harrier (Nesting)

Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure could result in significant impacts on the white-tailed kite and/or northern harrier if these were found to be nesting on site. Potential nesting impacts would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Nesting Birds and Migratory Bird Treaty Act Considerations

As discussed for the Synergy Oil Field site, potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Pumpkin Patch Site

The species with potential to occur in the northeast lower portion of the site are addressed below.

Wandering Skipper, South Coast Marsh Vole, and Southern California Salt Marsh Shrew

There would be no direct impact to habitat for these species during construction or long-term operations. Implementation of Mitigation Measure BIO-3 would require avoidance or relocation of special-status wildlife if encountered during biological monitoring.

Burrowing Owl

Potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. Potential impacts on burrowing owl would be mitigated through pre-construction surveys and associated avoidance as required under Mitigation Measure BIO-7.

Nesting Birds and Migratory Bird Treaty Act Considerations

As discussed for the Synergy Oil Field site, potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

LCWA Site

The species with potential to occur on the LCWA site are addressed below.

Burrowing Owl

Potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. Potential impacts on burrowing owl would be mitigated through pre-construction surveys and associated avoidance as required under Mitigation Measure BIO-7.

White-Tailed Kite

The LCWA site includes a number of trees that exhibit potential for nesting by the white-tailed kite. While nesting has not been previously observed, there is potential for this species to nest in the future. Direct impacts to nests would be considered significant; however, with implementation of Mitigation Measure BIO-8, any potential nesting impacts to white-tailed kite would be reduced to a level of less than significant.

Nesting Birds and Migratory Bird Treaty Act Considerations

As discussed for the Synergy Oil Field site, potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Operation

Following the completion of project construction activities, well plugging and abandonment or trail maintenance activities (such as the establishment and maintenance of a buffer zone between the trail and upper edge of restored habitats) could result in an adverse indirect impact to nesting avian species. Potential impacts to nesting birds and raptors during project operations would be reduced to a less-than-significant level through implementation of Mitigation Measure BIO-6; therefore, impacts would be less than significant.

In addition, the proposed office building and storage warehouse proposed at the Pumpkin Patch site will have exterior building lights that area illuminated at night that is similar to the adjacent existing office buildings to the north. The parking lot and oil facility areas may also require lighting at night. Without proper placement and/or shielding, light trespass and/or glare may result from the artificial lighting into the avoided 2-acre coastal wetland (and potentially, beyond, into the City Property site) in the northeast portion of the site. Implementation of Mitigation Measure BIO-9 would minimize light spillage to wetland habitats and wildlife.

The proposed project would not be expected to change tide and storm water levels on the project site and in its vicinity based on modeling of sea level rise scenarios; therefore, no impacts would occur to tidal marsh special-status species as a result of the interaction between the project and sea level rise.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure BIO-3: Biological Monitoring. All proposed project implementation shall occur under the supervision and direction of a qualified biologist. The biologist shall ensure maximum avoidance and minimization of impacts to wildlife and wetland vegetation during implementation of project activities on the Synergy Oil Field site, Pumpkin Patch site, and City site.

Prior to the daily start of cleanup activities and at the end of the work day, wildlife monitoring by a qualified biologist shall include inspection of any hazardous features (e.g., open trenches) that would trap, displace, injure, or kill wildlife. Prior to the end of daily cleanup activities, the biologist shall ensure all trash is properly disposed of such that it would not be accessible to wildlife.

For areas that contain suitable habitat for special-status wildlife, prior to and during all vegetation and ground-disturbing activities, a qualified biologist shall monitor work areas. If any special-status wildlife species are encountered during biological monitoring or by construction workers, work shall halt until the biologist determines appropriate actions to avoid and minimize harm to the species. California Fully-Protected species shall be avoided. Other actions may include relocation of the species for non-listed wildlife; however, relocation shall not be allowed for any listed species without first obtaining take authorization from USFWS and/or CDFW. To the extent feasible, non-listed wildlife shall be relocated to a CDFW/USFWS-approved relocation site that contains suitable habitat adjacent to the habitat where the species is found.

Mitigation Measure BIO-4: Belding's Savannah Sparrow Breeding Habitat. Suitable breeding habitat shall be created on the Synergy Oil Field site at a minimum acreage of 1:1 (created: impacted). Suitable breeding habitat shall consist of areas dominated by pickleweed and Parish's glasswort with a minimum 60 percent cover with a hydrologic regime similar to that currently present in the northern area, with suitable slope, inundation and soil salinity. The re-establishment requirements for Belding's savannah sparrow suitable breeding habitat (dominated by pickleweed and Parish's glasswort) shall be addressed in the Restoration Plan for the Synergy Oil Field site as outlined in Mitigation Measure BIO-5.

Mitigation Measure BIO-5: Re-establish Sensitive Natural Community Vegetation Alliances Subject to Permanent and Temporary Impacts. Sensitive natural communities located on the project site include California cordgrass marsh, Parish's glasswort patches, alkali heath marsh, pickleweed mats, Emory's baccharis thickets, black willow thicket, southern coastal brackish marsh, southern coastal salt marsh, and alkali meadow.

Prior to any vegetation or ground disturbance associated with the Synergy Oil Field or City Property site, comprehensive restoration plans shall be prepared and implemented within 1 year of impacts to sensitive natural communities. The Restoration Plan for the Synergy Oil Field site will be subject to review and approval of the Interagency Review Team (IRT) led by the Corps, and evidence of the IRT's approval shall be submitted to the City prior to initiation of grading activity on the Synergy Oil Field site. The Revegetation Plan for the City Property site shall be reviewed and approved by the CCC. The plans shall include, at a minimum, the following:

- A map showing the areas to be restored following permanent and temporary impacts.
- Identify specific restoration actions (e.g., revegetation requirements, removal of non-native plants) to be implemented during restoration.
- Quantity and quality of vegetation communities to be restored on site. Permanent impacts shall be restored at a minimum of 2:1 and temporary impacts restored at 1:1. The amount and extent of restoration shall be identified and determined based on habitat quality prior to implementation of the Restoration Plan and the initiation of any vegetation or ground disturbance.
- Plant palette for each Sensitive Natural Communities subject to re-establishment.
- Specific measurable performance standards for the areas to be re-established to evaluate habitat development, species composition and ecosystem functions.
- A timeline for implementation (within 1 year of impacts to sensitive natural communities).
- Provide specific protocols for monitoring, including sample design (e.g., number of replicates, locations for sample points, transects, etc.), sampling methods to be implemented, and statistical methods for analyzing the data.
- Maintenance procedures for areas to be re-established.
- Identify contingency plans (i.e., adaptive management procedures) to be implemented if specific performance goals are not met within the timeframe anticipated.
- Performance goals for the restoration that shall focus on habitat development, species composition, and ecosystem functions.
- Reporting requirements.

Mitigation Measure BIO-6: Nesting Bird and Raptor Avoidance. A qualified biologist shall identify areas where nesting habitat for birds and raptors is present. To ensure the avoidance of impacts to native nesting avian species, the following measures shall be implemented pursuant to the MBTA and California Fish and Game Code:

- Construction and maintenance activities during operations within and adjacent to known and potential avian nesting habitat shall be limited to the non-breeding season (September 1 through December 31) to the extent feasible. If construction or maintenance activities will occur during the avian nesting season (generally March 1 through August 31 for passerines and January 1 through August 31 for raptors), a qualified biologist shall conduct pre-construction nesting avian surveys within 5 days of the initiation of construction to determine the presence or absence of active nests. If a lapse in work of 5 days or longer occurs, another survey shall be conducted prior to work being reinitiated. Surveys shall include any potential habitat, including trees,

shrubs, and on the ground, or on nearby structures that might be impacted by construction or maintenance activities that may cause nest destruction or abandonment, such as vegetation or weed removal, earth work, and vector control actions.

- If active nests are observed, an avoidance buffer shall be demarcated with exclusion fencing and shall be maintained until the qualified biologist determines that the young have fledged. Fence stakes designed with bolt holes shall be plugged with bolts or other materials to avoid entrapping birds. The initial avoidance buffer(s) shall extend a minimum of 500 feet in all directions for raptors and listed passerines such as Belding's savannah sparrow and Ridgway's rail, and 300 feet in all directions for all other native passerines. A reduced buffer may be implemented at the discretion of the biologist for non-listed passerines based on such factors as species-tolerance to human presence, location of the nest, and the timing of nest construction, such as whether the nest was constructed after construction is initiated; however, for raptors and listed passerines, the biologist shall obtain approval from USFWS and/or CDFW prior to allowing work to commence within the 500-foot buffer.

Mitigation Measure BIO-7: Habitat Assessment and Pre-Construction Surveys for Burrowing Owl. A qualified biologist shall conduct a pre-construction burrowing owl survey of the project site prior to construction activities. If burrowing owls are detected, a Burrowing Owl Management Plan shall be prepared and approved by CDFW prior to commencement of construction. The Burrowing Owl Management Plan shall be prepared in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and shall address specific minimization and avoidance measures for burrowing owls, and measures to protect occupied habitat, such as avoidance and revegetation.

Mitigation Measure BIO-8: Avoidance of White-Tailed Kite Nesting. Remove all trees on the site outside the white-tailed kite nesting season (February 1 through June 30). If it is not possible to remove trees during the non-breeding season, a qualified biologist shall conduct a survey no more than 5 days prior to tree removal to document the absence of nests. If active nests are detected, they shall be avoided and a 500-foot no-disturbance buffer established (or reduced as specified in BIO-6). The qualified biologist shall monitor the site weekly until the nestlings have fledged and are no longer dependent on the nest.

Mitigation Measure BIO-9: Minimization of Light Spillage. A Project Lighting Plan shall be designed to minimize light trespass and glare into the avoided wetland habitat in the northeast portion of the site. Artificial lights shall be directed away from or shielded to prevent spillage into the avoided wetland habitat.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.3-66 through 3.3-68. These changes are identified in the form of Mitigation Measures BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, and BIO-9. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Impact BIO-3: The project would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Construction

Synergy Oil Field Site

Northern Area

Sensitive habitats that would be temporarily impacted include alkali heath marsh, California cordgrass marsh, Parish's glasswort patches, and pickleweed mats. All temporary impacts to these sensitive habitats associated with grading, berm installation, overlook terrace fill, berm/road removal, and sidewalk grading total 3.80 acres (5 percent of the entire northern area) and would be considered temporary given that these areas would be restored to coastal salt marsh, transitional wetland, or other native habitat comprising a total of 61.32 acres of coastal salt marsh enhancement, rehabilitation or reestablishment as part of the northern area restoration.

Overall, there would be no net loss of habitat; rather, there would be an increase in sensitive natural communities, including wetland habitats, both in terms of areal extent and function.

Southern Area

Temporary impacts to sensitive natural communities would occur; however, they would occur within primarily disturbed areas; therefore, no permanent impacts to sensitive natural communities would occur. Temporary impacts would be mitigated with implementation of Mitigation Measure BIO-5 through re-establishment of impacted sensitive natural communities.

City Property Site

Removal of oil facilities such as aboveground pipelines and tanks would occur on the City Property site. Based on the method of removal, and the already disturbed areas that would be used to facilitate the removals, no impact to sensitive natural communities are expected; however, in the event that inadvertent and temporary impacts to sensitive natural communities occur, such potentially significant impacts would be reduced to a less-than-significant level with implementation of Mitigation Measure BIO-5.

Once the aboveground pipelines and tank are removed, and as each of the 13 oil wells from the City Property site are removed and abandoned over time, all unvegetated disturbed pads surrounding the pipelines, tank, and oil wells, as well as any area temporarily affected during the removals, will be revegetated with a native upland seed mix. The native shrub cover will enhance the appearance of the oil field, help suppress the invasion of non-native species, and provide erosion control.

Permanent impacts to sensitive natural communities associated with construction of the pipeline corridor, would occur. Permanent and temporary impacts to sensitive natural communities associated with sidewalk construction would also occur. Implementation of Mitigation Measure BIO-5 would reduce impacts to sensitive natural communities to a less-than-significant level.

Pumpkin Patch Site

There would be no direct or indirect impacts to wetland vegetation alliances or sensitive natural communities associated with work on the Pumpkin Patch site.

LCWA Site

The LCWA site does not contain any sensitive natural communities. Construction at the LCWA site would result in direct impacts to disturbed/developed areas, mulefat scrub, annual non-native grassland, and ornamental vegetation. Therefore, no impacts to sensitive natural communities would occur.

Operation

As part of the proposed project, 39 oil wells from the Synergy Oil Field, one well from Pumpkin Patch site, 13 oil wells from the City Property site, and one well from Pumpkin Patch site would be removed and abandoned over a 20- to 40-year period. Based on the guidelines set forth for removal by DOGGR and the already disturbed areas that surround the wells that would be used to facilitate the removals, impacts to sensitive natural communities are not anticipated. Further, on the Pumpkin Patch site, a permanent fence or wall would be installed along the 100-foot setback to prevent indirect impacts to sensitive natural communities (i.e., *Frankenia salina* Herbaceous Alliance [Alkali heath marsh]) from occurring during the operational phase of the project; therefore, impacts would be less than significant.

Mitigation Measure

The following mitigation measure is included in the Draft EIR and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure BIO-5.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.3-74. This change is identified in the form of mitigation measure BIO-5. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact BIO-4: The project would not have a substantial adverse effect on federally or state protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Construction

Direct impacts to jurisdictional waters and wetlands would occur on the Synergy Oil Field site and are described below. On the Pumpkin Patch site, all jurisdictional areas within the northeast area will be avoided and set back by a minimum of 100 feet from the proposed restoration and cleanup areas. The Pumpkin Patch site also includes two seasonal depressions that the jurisdictional delineation did not identify as wetlands under the Clean Water Act or CWA and CCA; however, should this area be determined to be a CCA wetland, prior to any disturbance of this area, compliance with CCA Section 30233 would be required. No impacts to jurisdictional waters or wetlands would occur on the LCWA site since none are present. On the City Property

site, proposed project activities would consist of installation of the sidewalk and the removal of pipelines which would have direct impacts to potential jurisdictional waters and wetlands. Removal of the pipelines and other oil field infrastructure would not impact jurisdictional waters or wetlands as they are located outside of jurisdictional resources. Because the proposed project is a wetland restoration project and would result in long-term restoration and enhancement of waters of the U.S./State, no compensatory mitigation is proposed. Permits and/or approvals from the USACE, RWQCB, CDFW, and the CCC would be required for impacts to resources under their jurisdiction.

Synergy Oil Field Site

Proposed project activities on the Synergy Oil Field site would impact waters of the U.S./State, CDFW jurisdiction, and coastal wetlands subject to CCA jurisdiction during re-establishment of coastal salt marsh habitat within the northern area. All impacts to jurisdictional areas associated with tidal channel grading, seawall berm and overlook terrace installation, berm/road removal, and on-site sidewalk grading are considered to be temporary given that the areas to be disturbed as part of these activities would either be revegetated or be converted from one aquatic resource type to another where post-project functions would remain the same or increase. Sheet pile installation is accounted for as a permanent impact to jurisdiction; however, the amount of jurisdiction to be impacted by this activity is extremely limited, totaling less than one-quarter of 1 percent of the entire northern area and is necessary to account for sea level rise estimations. During construction of the sheet pile wall, the jurisdictional areas would likely be avoided based on in-field placement of the wall to position it over existing disturbed areas. No other project components would impact waters of the U.S./State. Proposed activities in the southern area and off-site areas for sidewalks within the City's right-of-way would not impact jurisdictional waters or wetlands. Impacts to jurisdictional resources would be avoided and minimized through implementation of Mitigation Measure BIO-10.

City Property Site

Construction of the sidewalks within the City right-of-way along 2nd Street would result in permanent and temporary impacts to potential wetland waters of the U.S./State and wetlands as defined by the CCA. Construction of the 40-foot-wide pipeline corridor, including widening of the adjacent access roads, would result in permanent impacts to wetland waters of the U.S./State and wetlands as defined by the CCA. There would be no impacts to potential CDFW jurisdiction associated with these activities. It is possible that some areas within the pipeline corridor could be restored following construction; however, the impacts are assumed to be permanent at this time until a detailed construction plan showing the precise layout of the pipeline is prepared. Any areas that are inadvertently or temporarily disturbed would be revegetated immediately upon completion of work. Impacts to jurisdictional resources would be avoided and minimized through implementation of Mitigation Measure BIO-10.

Operation

Impacts to jurisdictional wetlands or waters are not anticipated as a result of well abandonment and removal; however, in the event that inadvertent and temporary impacts to jurisdictional wetlands or waters occur, implementation of Mitigation Measure BIO-10 would reduce potentially significant impacts to a less-than-significant level. Any loss of wetland habitat function would be a significant impact and Mitigation Measure BIO-11 would require demonstration of no net loss of aquatic resource functions and demonstrate a substantial increase in wetland functions and values throughout the entire site.

By restoring tidal connection to a larger part of the site, the project could impact wetland habitats by allowing rising sea levels to enter and flood the marsh. Sea level rise modeling (M&N 2017) shows that intertidal wetland habitats would initially increase with 2 feet of sea level rise. With 5.5 feet of sea level rise, intertidal wetland habitats would decrease, according to the modeling results; however, there would still be more jurisdictional wetlands than what is currently existing on-site. Additionally, the current state estimates predict that 5.5 feet of sea level rise will not occur until the year 2100 or later.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure BIO-10: Avoid or Minimize Impacts to Aquatic Habitat. Temporary disturbance to, and permanent loss of, all aquatic habitat shall be avoided to the maximum extent feasible. All temporary staging areas and access roads, if necessary, shall be located away from aquatic habitats to the extent practicable, and aquatic habitats abutting impacted areas shall be clearly demarcated with fencing, rope, or signage to avoid inadvertent disturbance during restoration activities and operations. As detailed grading plans are prepared, they shall be designed to avoid temporary and permanent impacts to aquatic habitats to the extent practicable.

Mitigation Measure BIO-11: Post-Restoration Functional Lift Assessments of Wetland Waters of the U.S./State and Coastal Wetlands. Upon completion of restoration activities, the project shall demonstrate a no net loss of aquatic resource functions and demonstrate a substantial increase in wetland functions and values throughout the entire site. An assessment of habitat functions, such as biotic structure and hydrology, shall be conducted as part of the project's monitoring and reporting program outlined in the Final Restoration Plan for the Upper Los Cerritos Wetlands Mitigation Bank, so that these agencies can verify that the functional values have been achieved and/or provide measures that need to be implemented to meet the appropriate level of functionality.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.3-79. These changes are identified in the form of Mitigation Measures BIO-10 and BIO-11. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.4 Cultural Resources

Impact CUL-1: The project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Construction

ESA evaluated each of the three identified historic architectural resources and two identified historic-period archaeological sites for their individual eligibility for listing in the California Register and recommends that the Bixby Ranch Field Office (P-19-187657) and the Bixby No. 2 Discovery Well (ESA-LCW-2) are eligible.

The project proposes to relocate and rehabilitate the Bixby Ranch Field Office for use as a visitors center. The existing proposed preliminary Relocation and Rehabilitation Plan would not conform to the Secretary of the Interior's Standards for Rehabilitation (Standards). More specifically, under this Plan, the Bixby Ranch Field

Office would be moved from its current location and rotated 180 degrees altering its relationship with its views, spatial relationships and setting within the oil field. The proposed landscaping and addition of a tree at the southwest corner of the building interferes with the historic visual relationships of the building with the oil field. The proposed Los Cerritos Visitors Center sign and ADA ramp also detracts from the south elevation, views of which were clear and unobstructed in the circa 1928 historical photograph of the building. The Plan to rehabilitate the primary (west) elevation and south elevation in a manner consistent with the 1928 historic photograph includes the addition of a ramp, railings, and deck that are not differentiated from the historic materials of the Bixby Ranch Field Office, as the baluster guardrails would match the existing non-contributing porch railings (altered as part of the last renovation). In addition, the building's one-story massing is a character-defining feature; raising the building to protect it from sea level rise would alter the scale of the building and detract from its architectural character and design. Furthermore, without a relocation and rehabilitation plan, the building could be damaged during relocation and/or rehabilitation; a relocation and rehabilitation plan would protect the building from potential adverse impacts during relocation and provide guidelines for rehabilitation in conformance with the Standards. Because the proposed project plans to relocate and rehabilitate the Bixby Ranch Field Office would not conform to the Standards, the project would result in a significant impact to the resource. After project completion and once all the oil facilities are removed (over a 40-year period), the Bixby Ranch Field Office would no longer retain its historical associations with the themes of Los Angeles Basin Oil Industry (1892–1945), Long Beach Oil Industry (1921–1945), and the Petroleum Property Type and property types of Petroleum Property Type and Field Office Property Type since the character-defining features of the Synergy Oil Field would be removed. Mitigation Measures CUL-1, CUL-2, CUL-3, and CUL-4 would reduce impacts to the resource identified as the Bixby Ranch Field Office to a level of less than a significant. These measures ensure that the building is properly documented in compliance with federal guidelines, and that relocation and re-use plans conform to the methodology recommended by the National Park Service (NPS) and Secretary of the Interior's Standards for Treatment of Historic Properties and other federal guidelines.

The Bixby No. 2 Discovery Well, is recommended individually eligible for listing in the California Register and local listing under Criterion 1/A. The resource retains character-defining features of an early oil well associated with the Petroleum Property Type and retains sufficient integrity to convey its historical significance. Because the project, as currently designed, proposes to remove 95 percent of oil production infrastructure, including this well, the proposed project would have significant impact on the Bixby No. 2 Discovery Well because after project completion the resource would no longer retain character-defining features or integrity to convey its historical significance; however, Mitigation Measures CUL-1, CUL-2, and CUL-4, which require retention of the well, documentation, and public interpretation, are included to reduce potential impacts to the resource identified as the Bixby No. 2 Discovery Well to a level of less than significant. After project completion with mitigation incorporated, the impact would be less than significant because the Bixby No. 2 Discovery Well would be preserved.

The project would have no indirect impacts on historical resources within the project vicinity (0.5-mile radius).

No prehistoric archaeological resources were identified, and the technical report prepared for the project (Fulton and Fulton 2017) indicates the area has a low sensitivity for buried prehistoric archaeological sites; however, there is the possibility that buried prehistoric and historic-period resources do exist in the project site and those resources could be impacted by the project. Consultation with the Gabrieleño Band of Mission Indians – Kizh Nation and the Soboba Band of Luiseño Indians, conducted as part of AB 52 and SB 18

requirements (and discussed in Section 3.16, *Tribal Cultural Resources*), indicates that both Tribes consider the area to have a high sensitivity for archaeological resources. Further, both Tribes recommended Native American monitoring of all ground-disturbing activities. If previously undocumented cultural resources are encountered, those resource could be found eligible for listing in the California Register and could be impacted by the project. Implementation of Mitigation Measures CUL-5 through CUL-7 would ensure that impacts to historical resources as defined in Section 15064.5 would be less than significant.

Operation

Once construction is complete, operation of the project is not expected to impact any archaeological resources or built environment resources that could qualify as historical resources; however, if archaeological resources that qualify as historical resources are identified during the course of operations, implementation of Mitigation Measures CUL-5 and CUL-7 would ensure that impacts to historical resources as defined in Section 15064.5 would be less than significant.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure CUL-1: Recordation. Prior to the issuance by the City of Long Beach of a grading or building permit for the relocation of the Bixby Ranch Field Office and a grading permit for the wetlands restoration work on the Synergy Oil Field, a recordation document in accordance with the Historic American Landscape Survey (HALS) and the Historic American Buildings Survey (HABS) Level II requirements shall be completed for the Bixby No. 2 Discovery Well and the Bixby Ranch Field Office, both of which are individually eligible. The HABS/HALS document shall be prepared by a qualified architectural historian or historic preservation professional. These documents shall include a historical narrative on the industrial and historical importance of the Synergy Oil Field and Seal Beach Oil Field for background information, in addition to recording the existing appearance of the Bixby Ranch Field Office and the Bixby No. 2 Discovery Well in professional large format HABS/HALS photographs. For HALS, the Bixby No. 2 Discovery Well, the property setting and contextual views shall be documented. For HABS, the exteriors of the Bixby Ranch Field Office, representative interior spaces, character-defining features, as well as the setting and contextual views shall be documented. All documentation shall be completed in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation (HABS/HALS standards). Original archivally sound copies of the report shall be submitted to the HABS/HALS collection at the Library of Congress and the archives of the South Central Coastal Information Center, California State University, Fullerton, CA. Non-archival digital copies shall be distributed to the City of Long Beach, City of Long Beach Public Library, and the Long Beach Historical Society. In addition, any existing and available design and/or as-built drawings and pertinent supporting materials such as maps and aerial photographs shall be compiled, reproduced, and incorporated into the recordation document.

Mitigation Measure CUL-2: Retention of the Bixby No. 2 Discovery Well. Prior to the issuance of a grading permit for the Synergy Oil Field site by the City of Long Beach, a plan shall be implemented by the Applicant for the retention and preservation of the Bixby No. 2 Discovery Well and sign along with a 5-foot buffer around the furthest point from the concrete pad. The plan shall define the necessary maintenance to the sign that shall be performed (see National Park Service Preservation Brief 25, "The Preservation of Historic Signs," by Michael J. Auer). The plan shall describe a path for pedestrian traffic from the visitors center to the Discovery Well that shall be developed and installed. At the Discovery Well site, a wayside sign shall be installed interpreting the Seal Beach Oil Field and the importance of

the Bixby No. 2 Discovery Well. The interpretation of the Bixby No. 2 Discovery Well shall be overseen and prepared by a qualified architectural historian or historic preservation professional. The ongoing maintenance of the Bixby No. 2 Discovery Well site shall be the responsibility of the owner of this area of the Synergy Oil Field site.

Mitigation Measure CUL-3: Historic Preservation Consultation, Preparation of a Relocation and Rehabilitation Plan, and Construction Monitoring. Prior to the issuance of a grading permit for the Synergy Oil Field site by the City of Long Beach, a Relocation and Rehabilitation Plan and plans for Construction Monitoring shall be submitted by the Applicant for review and approval. The project design for Bixby Ranch Field Office is presently conceptual and detailed architectural drawings showing the proposed rehabilitation have not been prepared. A qualified architectural historian shall provide input to the project architect to revise the design in accordance with the Standards to retain the character-defining features of the exterior and interior of the Bixby Ranch Field Office. Once the design has been finalized, the architectural historian shall prepare a Standards plan review for submittal to the City of Long Beach Planning for a Certificate of Appropriateness.

Following the approval of the Bixby Ranch Field Office project plans, a Relocation and Rehabilitation Plan (Plan) shall be developed by a qualified historic preservation consultant. The Plan shall include relocation and rehabilitation methodology recommended by the National Park Service (NPS), which are outlined in the booklet entitled "Moving Historic Buildings," by John Obed Curtis (1979). The Plan shall include an assessment of the building condition by a qualified engineer, and a shoring plan for relocation and storage, and guidelines for relocation to the final site. If temporary storage is required, the storage conditions should closely follow the recommendations of NPS Preservation Brief 31: Mothballing Historic Buildings with regard to recommendations for structural stabilization, pest control, protection against vandalism, fire, and moisture, adequate ventilation which should be applied to the building at the temporary storage location to ensure the safety of the building during storage. A periodic maintenance and monitoring plan shall also be included in the Plan and implemented during the storage period in accordance with the guidance outlined in NPS Preservation Brief 31. The Plan shall be reviewed and approved by the City prior to issuance by the City of permits to relocate the Bixby Ranch Field Office.

Upon relocation of the Bixby Ranch Field Office, any maintenance, repair, stabilization, rehabilitation, preservation, conservation, or reconstruction work performed in conjunction with the relocation of the building shall be undertaken in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Properties. The relocation and rehabilitation process shall be monitored by a qualified historic preservation consultant at key intervals to ensure conformance with the Standards and NPS guidelines. The preservation consultant shall also be available to provide technical expertise to reduce potential impacts to historical resources from unforeseen circumstances.

Lastly, a permanent metal plaque shall be affixed to the primary elevation or a marker shall be imbedded in the pavement in front of the primary elevation of the relocated Bixby Ranch Field Office, which will briefly explain where the building was originally located (original and second location) and that the building was relocated to a third location. A qualified architectural historian or historic preservation professional shall provide oversight to the design and fabrication of an interpretive plaque/marker.

Mitigation Measure CUL-4: Interpretation. Interpretation about the significant history of the Synergy Oil Field shall be placed within the Bixby Ranch Field Office (the proposed visitors center), and along the proposed walking trails. The interpretation shall use the recommendations from Mitigation Measures CUL-2 (Retention) and CUL-3 (Recordation) to interpret the history of the Los Angeles Basin Oil Industry, Long Beach Oil Industry, Seal Beach Oil Field (including the Bixby and McGrath leases), Rancho Los Alamitos Company, Synergy Oil Field, Marland Oil Company, and Continental Oil

Company. Furthermore, oral histories shall be conducted of previous employees who worked on the Synergy Oil Field or Seal Beach Oil Field, or experts with knowledge of the abovementioned themes to incorporate within the interpretive exhibit. Historical photographs, aerials, topographic maps, and newspapers shall compliment the interpretive exhibit to visually demonstrate the activities that took place on the Synergy Oil Field. A qualified architectural historian or historic preservation professional shall provide oversight to the design and installation of an interpretive program.

Mitigation Measure CUL-5: Retention of Qualified Archaeologist and Worker Training. Prior to the issuance of a grading permit for each of the four individual sites and any off-site improvements by the City of Long Beach, evidence shall be provided to the City that a qualified archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Secretary of the Interior 2008) has been retained by the City to conduct any required training, evaluation, or treatment of archaeological resources that might be encountered during implementation of the project. As part of this, prior to the start of grading, the qualified archaeologist shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel must be informed of the types of archaeological resources that may be encountered (both prehistoric and historical), and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. The Applicant must ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance. This document shall be made available to the City upon request.

Mitigation Measure CUL-6: Native American Monitoring. A Native American monitor from the Gabrieleño Band of Mission Indians—Kizh Nation, a consulting party for the project under AB 52, shall be present during all earth-moving construction activities. The Native American monitor shall be given the opportunity to participate in the cultural resources sensitivity training described in Mitigation Measure CUL-5. At least 30 days prior to issuance of grading permits by the City of Long Beach for each of the four individual sites and any off-site improvements, a Native American Monitoring Agreement (Monitoring Agreement) shall be developed between the City and the Gabrieleño Band of Mission Indians—Kizh Nation. The Monitoring Agreement shall pertain to prehistoric archaeological resources and Tribal cultural resources, respectively, and shall identify any monitoring requirements and treatment of cultural resources to meet both the requirements of CEQA and those of the Tribal representative. The Monitoring Agreement shall also address communication protocols in the event of an unanticipated discovery of cultural materials, and the roles, responsibilities, and authorities of the Native American Monitor. The Monitoring Agreement shall also detail the protocols for treatment and final disposition of any Native American cultural resources, sacred sites, and human remains discovered on the site that the Native American Monitor shall implement in consultation and coordination with the Native American Most Likely Descendant, as identified by the NAHC. In accordance with Mitigation Measure CUL-9, discussed below, discovery and treatment of human remains shall comply with State Health and Safety Code Section 7050.5 and PRC Section 5097.98.

Mitigation Measure CUL-7: Archaeological Resource and/or Tribal Cultural Resource Discovery and Treatment. In the event of the unanticipated discovery of archaeological or other cultural resources, whether discovered through Native American monitoring or not, all work activities in the area (within approximately 100 feet of the discovery) shall be halted or redirected until the discovery can be evaluated by a qualified archaeologist. Construction shall not resume until a qualified archaeologist has conferred with the City and, in the case of prehistoric archaeological resources and tribal cultural resources, the Native American monitor, on the significance of the resource. If it is determined that the discovered archaeological resource and/or tribal cultural resource is significant under CEQA, avoidance and preservation in place shall be the preferred manner of mitigation, pursuant to PRC Section 21083.2(b) and Section 21084.3. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. In the event that preservation in place is demonstrated to be infeasible

and data recovery through excavation is the only feasible mitigation available, a Treatment Plan shall be prepared and implemented by a qualified archaeologist, in consultation with the City, that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource or cultural information in the event of a tribal cultural resource. The City shall also consult with appropriate Native American representatives in determining treatment for prehistoric or Native American resources to ensure cultural values ascribed to the resources, beyond those that are scientifically important, are considered. Any evaluation and treatment shall be supervised by an individual or individuals that meet the Secretary of the Interior's Professional Qualification Standards.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.4-20 through 3.4-23. These changes are identified in the form of Mitigation Measures CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, and CUL-7. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Impact CUL-2: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

Construction

Two historic-period archaeological resources were identified within the project site, and both would be subject to disturbance as a result of project implementation. Both resources were recommended as ineligible for listing in the California Register, and for the same reason, neither qualifies as a unique archaeological resource pursuant to Section 15064.5. As discussed above, while the potential for buried archaeological resources is considered low, both the Gabrieleño Band of Mission Indians – Kizh Nation and the Soboba Band of Luiseño Indians have indicated that the area may have a high sensitivity for cultural resources. Implementation of Mitigation Measures CUL-5 through CUL-7 during construction activities would ensure that impacts to archaeological resources as defined at Section 15064.5 would be less than significant.

Operation

Once construction is complete, operation of the project is not expected to impact archaeological resources; however, if archaeological resources were identified during the course of operations, implementation of Mitigation Measures CUL-5 through CUL-7 would ensure that impacts to archaeological resources as defined at Section 15064.5 would be less than significant.

Mitigation Measures

The following mitigation measures are included in the Draft EIR and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Refer to Mitigation Measures CUL-5 through CUL-7.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.4-24. These changes

are identified in the form of Mitigation Measures CUL-5, CUL-6, and CUL-7. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Impact CUL-3: The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Construction

The results of the fossil locality search and field survey conducted during preparation of this report indicate that no paleontological resources have been found within or immediately adjacent to the project site. The project site contains Artificial Fill overlying Young Alluvial Fan and Channel Deposits, Undivided. Artificial Fill reaches a maximum depth of approximately 33 feet in the eastern half of the Pumpkin Patch site; however, the depth of Artificial Fill elsewhere in the project site is unknown. While Artificial Fill has no paleontological sensitivity, the underlying Young Alluvial Fan and Channel Deposits, Undivided have low paleontological sensitivity to a depth of 15 feet and high paleontological sensitivity below that mark. Given the sensitivity of the underlying geological deposits, there is a possibility that excavation could encounter significant paleontological resources. Disturbance of such resources would constitute a significant impact on the environment. Implementation of Mitigation Measure CUL-8 would ensure that impacts to paleontological resources are less than significant.

Operation

Once construction is complete, operation of the project does not have the potential to impact paleontological resources.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure CUL-8: Paleontological Monitoring. Prior to commencement of any grading or excavation activity on site, the Applicant shall retain a qualified paleontologist, defined as a paleontologist meeting the guidelines of the Society of Vertebrate Paleontology (SVP) (2010) and approved by the City of Long Beach. The qualified paleontologist, or a designated paleontological monitor working under the guidance of the qualified paleontologist, shall attend and participate in any preconstruction meetings and worker training (as discussed in Mitigation Measure CUL-5), and shall be on site during all excavation and other significant ground-disturbing activities that reach a depth of 15 feet or greater below the modern ground surface. This is the minimum depth at which Young Alluvial Fan and Valley Deposits, Undivided may be encountered. These deposits are considered to have low paleontological sensitivity near the top of the geologic unit (which may not necessarily correspond with the modern ground surface), and a high paleontological sensitivity greater than 15 feet below the top of the unit. In the event that paleontological resources (e.g., fossils) are unearthed during ground-disturbing activity, the paleontological monitor shall have the authority to temporarily halt or divert grading activity to allow recovery of paleontological resources. The area of discovery shall be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor shall allow grading to recommence in the area of the find. Daily field logs shall be prepared during the course of the monitoring, and upon completion of monitoring a final report shall be prepared for submittal to the City of Long Beach.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.4-24. This change is identified in the form of mitigation measure CUL-8. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact CUL-4: The project would not disturb any human remains, including those interred outside of formal cemeteries

Construction

While no known human remains have been identified in the project site as a result of the cultural resources studies, there is a possibility that ground-disturbing activities could encounter previously undocumented human remains. The discovery of human remains would require handling in accordance with PRC Section 5097.98. In the unexpected event that human remains are unearthed during construction activities, impacts would be potentially significant, and as such, mitigation would be required. With implementation of Mitigation Measure CUL-9, impacts to human remains would be less than significant.

Operation

Once construction is complete, operation of the project is not expected to impact human remains; however, if human remains are identified during the course of operations, implementation of Mitigation Measure CUL-9 would ensure that impacts to human remains are less than significant.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure CUL-9: Treatment of Human Remains. In accordance with California Health and Safety Code Section 7050.5, if human remains are found, the Los Angeles County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains (100 feet or as determined by the project archaeologist) shall occur until the procedures set forth in this measure have been implemented. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission (NAHC) within 24 hours. In accordance with California PRC Section 5097.98, the NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.4-25. This change is identified in the form of mitigation measure CUL-9. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Cumulative Impacts

Multiple projects, mostly development within an urban setting, are proposed throughout the geographic area addressed in the cumulative analysis. Cumulative impacts to cultural resources could occur if any of these projects, in conjunction with the proposed project would have impacts on resources that, when considered together, would be significant; however, the project would not significantly affect known cultural resources, including archaeological resources, historical-period built resources, or human remains. Potential impacts to the known historical-period resources in the project site would be reduced to a less than significant level with the implementation of Mitigation Measures CUL-1 through CUL-4, which require adherence to the Secretary of the Interior's Standards and the development of appropriate documentation and interpretive materials. Further, while there is the potential for impacts to unknown archaeological resources, such as those that might be discovered during ground-disturbing activities during project construction, Mitigation Measures CUL-5 through CUL-7, which provide for cultural resources sensitivity training, Native American monitoring, and treatment protocols for unanticipated discoveries, would ensure that impacts are reduced to a less than significant level. Taken together, implementation of these mitigation measures would ensure that the project would not have an impact on cultural resources. Therefore, cumulative impacts during construction would not be cumulatively considerable (less than significant).

In the event that human remains are encountered during project implementation, Mitigation Measure CUL-9 would ensure that the remains are treated in accordance with relevant state laws and that impacts would be reduced to a less than significant level. It is assumed that any other projects in the geographic scope of analysis would also follow state law. Therefore, cumulative impacts on human remains during construction would not be cumulatively considerable (less than significant).

Regarding paleontological resources, activities associated with the project do have the potential to impact paleontological resources, and the project, in conjunction with other projects in the area, could contribute to the progressive loss of paleontological resources, as-yet unrecorded fossil sites, associated geological and geographic data, and fossil bearing strata; however, excavation activities during project construction would require compliance with Mitigation Measure CUL-8, which requires monitoring of sensitive geologic deposits, and recovery and appropriate studies in the event of an unanticipated discovery. Adherence to Mitigation Measure CUL-8 would reduce impacts to paleontological resources to a less than significant level. Therefore, cumulative impacts to paleontological resources during construction would not be cumulatively considerable (less than significant).

No impacts to cultural resources are anticipated during project operations. Therefore, cumulative impacts during operations would not be cumulatively considerable (less than significant).

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the project's contribution to the significant cumulative environmental effects, which are identified and described on Draft EIR pp. 3.4-25 to 3.4-26. This change is identified in the form of mitigation measures CUL-1 through CUL-7. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.5 Geology and Soils

Impact GEO-2: The project would not expose people or structures to potential substantial adverse effects as a result of strong seismic ground shaking.

The region will likely experience a large regional earthquake within the operational life of the project. There is a potential for high-intensity groundshaking at the project site that would be associated with such an earthquake. Intense groundshaking and high ground accelerations would affect the entire area around the proposed facilities, wells, and associated infrastructure. The primary and secondary effects of groundshaking could damage structural foundations, distort or break wells or pipelines, and place people at risk of injury or death. The impact from induced seismic activity caused by oil production was analyzed above in Impact GEO-1.

Construction

Workers could be exposed to ground shaking on all four individual sites that comprise the project site; however, the construction period is short term, with most construction workers located outside of any structures.

More importantly, the structural elements of the proposed project (i.e., the structures on the Pumpkin Patch and LCWA sites, and the oil pipeline and utilities from the LCWA site through the City Property site to the Pumpkin Patch site) would be required to undergo appropriate design-level geotechnical evaluations prior to final design and construction. Implementing the regulatory requirements in the CBC and local ordinances, and ensuring that all buildings and structures are constructed in compliance with the law is the responsibility of the project engineers and building officials. In addition, the construction of the oil wells, storage facilities, and pipeline system and utility corridor would be under the permitting, design specifications, and inspection jurisdiction of DOGGR. Similar to the CBC, the registered professionals designing and constructing the wells, pipelines, and associated infrastructure are required to comply with DOGGR regulations. Finally, the proposed project would either remove the landfilled materials at the Pumpkin Patch site and replace those materials with imported fill appropriately placed and compacted to support the proposed structures, or drive piles through the landfill materials that is to reach underlying stable units to support the building foundation. With compliance with the regulatory requirements and the implementation of geotechnical design recommendations as required by Mitigation Measure GEO-1, Implement Geotechnical Recommendations, impacts relative to seismic shaking would be reduced to a less-than-significant level with mitigation for all components of the proposed project.

Operation

Multiple structures would be constructed as part of the proposed project, including an office, warehouse, oil production wells, and associated oil production and storage facilities. Therefore, the proposed project would place people and structures in an area that could experience strong seismic ground shaking.

Non-Oil Production Structures

The project structures (e.g., buildings and associated infrastructure) to be constructed at the Pumpkin Patch and LCWA sites would be designed to withstand seismic ground shaking during their operation in compliance with the CBC and local building code regulations, and recommendations from site-specific geotechnical

investigations, thereby reducing the potential for structural damage and risks to public safety. The parking lot, berms, trail, and restored ecosystem areas would not contain structures that could become irreparably damaged and harmful to persons in the event of strong ground shaking. Finally, although the existing Synergy building to be relocated and repurposed as a visitors center and the building would not be structurally changed, the existing building would be placed on a new foundation constructed using present-day CBC standards that would improve its ability to withstand seismic shaking.

Oil Production Structures

DOGGR regulations include design specifications for the wells, pipelines, storage tanks, and containment facilities, along with routine inspections of the operations of oil and gas wells, storage tanks, pipelines, and associated infrastructure. Wells are required to have conductor casings that protect the inner well casing from seismic damage and seal off shallower depth intervals to prevent oil and produce water from entering shallower non-oil producing zones such as aquifers with beneficial uses such as drinking water. The wells, well heads, and pipelines would be constructed with pressure-sensing equipment and shutoff valves that would automatically shut off and isolate wells and pipelines should a seismic event damage wells or pipelines. The wells and well heads would be constructed in well cellars that would contain oil and produced water in the event of leaks or damage from a seismic event. The storage tanks would be constructed with leak detection equipment and within secondary containment structures. In addition, and as previously discussed, the proposed pipelines, electrical lines, and control cables that would run from the LCWA site across the City Property site and to the Pumpkin Patch site were evaluated for potential displacement or damage in the event of a seismic event. The study identified specific seismic design elements to accommodate the anticipated maximum amount of displacement and minimize the risk of damage. The required design specifications would reduce the risk of damage to the oil production wells, associated infrastructure, workers, and the environment from seismic events to a less-than-significant level.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure GEO-1 would apply to all project components.

Mitigation Measure GEO-1: Implement Geotechnical Recommendations. As recommended in the preliminary geotechnical studies prepared for project implementation on each project site, at such time the details for the following site specific improvements and their locations are finalized, a design-level geotechnical investigation shall be prepared to develop final site- and development-specific recommendations based upon the potential geologic conditions that are described and evaluated in the geotechnical studies and this EIR. Design-level geotechnical investigation shall be prepared for the following project components and shall be submitted to the City of Long Beach, Building Department and Planning Department:

- Visitors center on the Synergy Oil Field site;
- Office building and warehouse on the Pumpkin Patch site;
- All well cellars on the Pumpkin Patch and LCWA sites; and
- All tank battery and containment areas on the Pumpkin Patch and LCWA sites.

The design-level geotechnical investigations shall provide recommendations as necessary to address the geotechnical issues that were identified for each site in the EIR. In addition to compliance with the CBC, design-level measures shall be provided for the following specific geotechnical issues:

- Risks from seismic shaking of structures such as the building to be constructed on the Pumpkin Patch site shall be reduced by designing the structures to withstand the anticipated maximum level of seismic shaking, and incorporating bracing and anchoring techniques to withstand a Maximum Credible Earthquake of 7.0 magnitude.
- For those project sites that have been identified as susceptible to liquefaction, the design-level geotechnical investigations shall identify the specific measures recommended to address liquefaction potential, which could include driving piles through susceptible materials; conditioning the soils by deep soil mixing, jet or pressure grouting, or dynamic compaction techniques; or by removing the susceptible soils.
- If the landfill on the Pumpkin Patch site is not removed, any structures proposed to be placed on top of the landfill shall be stabilized one of two measures: by driving piles through unstable materials into underlying stable units or by removing the susceptible soils and replacing the materials with properly compacted imported fill.
- For those sites on which structures may be placed in areas of expansive soils, the design-level geotechnical study shall identify whether the expansive soils should be removed and replaced with imported non-expansive fill, or with proper mixing and grading of site materials.
- The Applicant shall provide the design-level geotechnical investigations along with the plans, specifications, grading plans, and building plans to the City for review as a condition of approval to acquire the necessary grading and building permits.
- Implementation by the Applicant of the recommendations in the design-level geotechnical investigations will mitigate geotechnical hazards to a level of less than significant.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described in the Final EIR on pp. 3.5-33 and 3.5-34. This change is identified in the form of mitigation measure GEO-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact GEO-3: The project would not expose people or structures to potential substantial adverse effects as a result of seismic-related ground failure, including liquefaction.

Construction and Operation

All four individual sites that comprise the project site are located in areas that are susceptible to liquefaction; thus, liquefaction could damage structures during construction or operations, and place the safety of workers or the public at risk; however, as discussed above in Impact GEO-2, project structures would be designed to withstand seismic ground shaking and seismic-related ground failures in accordance with the CBC, DOGGR, and local building code regulations and recommendations from site-specific geotechnical investigations, thereby reducing the potential for structural damage and risks to workers and public safety. This would include the new foundation that the existing Synergy office building would be placed on and repurposed as a visitors center. The required geotechnical investigations would provide design recommendations to reduce the risk of damage from seismic-induced liquefaction in accordance with these standards and regulations. The parking

lot, berms, trail, and restored ecosystem areas would not contain structures that could become irreparably damaged and harmful to persons in the event of ground shaking but would also be designed in accordance with regulatory requirements. As discussed above, the geotechnical investigations would include recommendations to address geotechnical issues, including liquefaction. With implementation of standard engineering practices and standard construction methods, compliance with CBC, DOGGR, and local regulations for conducting geotechnical investigations, and the implementation of the design recommendations from the geotechnical investigations as required by Mitigation Measure GEO-1, Implement Geotechnical Recommendations, ground failure impacts such as seismic-induced liquefaction would be reduced to a less-than-significant level with mitigation for all components of the proposed project.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure GEO-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.5-35. This change is identified in the form of mitigation measure GEO-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact GEO-6: The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Construction and Operation

As discussed in Impact GEO-4, there is no identified risk for landslides or lateral spreading within the project area. All project components would be located in relatively flat to gently-sloping topography and would, therefore, have a low to no susceptibility to seismically or non-seismically induced landslides or lateral spreading. Therefore, there would be no impact related to landslides or lateral spreading.

Subsidence is commonly associated with severe, long-term withdrawal of groundwater and/or oil in excess of recharge that eventually leads to overdraft of the aquifer or production zone. This is the reason that oil production operations re-inject the groundwater from oil production back into the production zone to prevent subsidence. The proposed project would continue the current practice of returning the groundwater to the depth levels from which it was extracted, reducing the potential for subsidence (BOMP 2017c).

The geotechnical and environmental studies for the sites concluded that the Pumpkin Patch and LCWA sites would have the potential for significant collapse or subsidence due to the uncertain nature of the landfilled materials buried at the site; however, as discussed above for Impact GEO-2, the proposed structures for the Pumpkin Patch and LCWA sites would be required to comply with the CBC (see Section 3.5.3, CBC regulations), which would require the design to undergo appropriate design-level geotechnical evaluations prior to final design and construction. If necessary, for the Pumpkin Patch site, this may include removing the

landfilled materials and replacing those materials with imported fill appropriately placed and compacted to support the proposed structures as described above. With implementation of standard engineering practices and standard construction methods, compliance with CBC and local regulations for conducting geotechnical investigations, and the implementation of the design recommendations from the geotechnical investigations as required by Mitigation Measure GEO-1, Implement Geotechnical Recommendations, ground failure impacts from unstable geologic units would be reduced to a less-than-significant level with mitigation for all components of the proposed project.

As discussed above for Impact GEO-3, the design of structures would be required to undergo appropriate design-level geotechnical evaluations prior to final design and construction, which would include providing recommendations to address non-seismically induced liquefaction. With compliance with the regulatory requirements, impacts relative to non-seismically induced liquefaction would be less than significant with mitigation.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure GEO-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.5-38. This change is identified in the form of mitigation measure GEO-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact GEO-7: The project could be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property.

As previously noted, the CBC, based on the IBC and the now defunct UBC, no longer includes a Table 18-1-B. Instead, CBC Section 1803.5.3 describes the criteria for analyzing expansive soils.

As discussed in the setting, the geotechnical investigation of the alluvial materials on the Pumpkin Patch and LCWA sites concluded the materials are considered to have low to moderate expansion potential. A geotechnical investigation for expansive soils has yet not been conducted for the Synergy Oil Field but would be prepared for the design of the new foundation to which the existing office building would be relocated. A geotechnical investigation for the pipeline that would cross the City Property site was conducted to provide pipeline design criteria to enable the pipeline to accommodate movement due to seismic events.

Construction

The structures proposed under the project could be located on soils with a moderate potential for soil expansion; however, until the structures are complete, the potential for damage from expansive soils during construction would be minimal, if any, largely due to the amount of time required for expansive soils to exhibit damage. Therefore, the potential impact during construction would be considered less than significant.

Operation

The project structures (i.e., buildings, warehouse, oil storage tanks and associated infrastructure on the Pumpkin Patch and LCWA sites, the visitors building on the Synergy Oil Field site, and the oil transmission pipeline and utility corridor on the LCWA, City Owned Property, and Pumpkin Patch sites) could be located on soils with up to a moderate potential for soil expansion, which could damage structures and result in risks to people or structures if not designed appropriately; however, as discussed above for Impact GEO-2, the design of structures would be required to undergo appropriate design-level geotechnical evaluations prior to final design and construction, which would include providing recommendations to address expansive soils, if present. With implementation of standard engineering practices and standard construction methods, compliance with CBC and local regulations for conducting geotechnical investigations, and the implementation of the design recommendations from the geotechnical investigations as required by Mitigation Measure GEO-1, Implement Geotechnical Recommendations, ground failure impacts due to expansive soils would be reduced to a less-than-significant level with mitigation for all components of the proposed project.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure GEO-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.5-38. This change is identified in the form of mitigation measure GEO-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Cumulative Impacts

Construction activities have the potential to cause soil erosion and loss of topsoil. If cumulative projects were constructed at the same time, the erosion effects could be cumulatively significant if appropriate measure are not taken; however, the state Construction General Permit and the Long Beach Storm Water Management Program would require each cumulative project to prepare and implement a SWPPP. The SWPPPs would describe BMPs to control runoff and prevent erosion for each project. Through compliance with the Construction General Permit, the potential for erosion impacts would be reduced to less than significant levels. The Construction General Permit has been developed to address cumulative conditions arising from construction throughout the state, and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. For example, two adjacent construction sites would each be required to implement BMPs to reduce and control the release of sediment and/or other pollutants in any runoff leaving their respective sites, including from erosion. The runoff water from both sites would be required to achieve the same action levels, measured as a maximum amount of sediment or pollutant allowed per unit volume of runoff water. Thus, even if the runoff waters were to combine after leaving the sites, the sediments and/or pollutants in the combined runoff would still be at concentrations below action levels and would not be cumulatively considerable (less than significant). Similarly, the impacts of the proposed project combined with other cumulative projects within the region would not cause a significant

cumulative impact related to soil erosion and the proposed action's contribution to cumulative impacts on soil erosion would not be cumulatively considerable (less than significant).

Until the construction of structures has been completed, there would be no impacts from seismic events (e.g., fault rupture, seismic shaking, seismic-induced ground failures such as liquefaction, lateral spreading, or landslides) or non-seismically induced ground failures (e.g., landslides, lateral spreading, subsidence, liquefaction, collapse, or expansive soil) due largely to the relatively short period that construction would take place and the likelihood of a seismic event occurring at that time. Therefore, the cumulative impacts during construction would not be cumulatively considerable (less than significant).

Impacts from seismic events (e.g., fault rupture, seismic shaking, seismically induced ground failures such as liquefaction, lateral spreading, or landslides) or non-seismically induced ground failures (e.g., landslides, lateral spreading, subsidence, liquefaction, collapse, or expansive soil) tend to be confined to each given site due to varying conditions and distance to epicenter. In addition, each cumulative project would also be required to comply with the requirements of the CBC and local building codes, which would require geotechnical investigations to identify potential geotechnical issues and provide recommendations to reduce or eliminate the risks. Each cumulative project would be required to conduct geotechnical investigations and develop recommendations to address geotechnical hazards. With compliance with applicable regulations and the implementation of mitigation measures such as Mitigation Measure GEO-1, Implement Geotechnical Recommendations, the cumulative impacts would be reduced and would not be cumulatively considerable (less than significant).

Upon completion of the proposed project and any nearby cumulative projects, each project would be required to comply with the Long Beach MS4 Permit, Long Beach LID Manual, and various sections of the LBMC, all of which contain requirements to control surface water runoff and erosion. Similar to the discussion above of how SWPPPs would control runoff and prevent erosion for cumulative construction impacts, because each cumulative project would be required to comply with the same regulations and to the same action levels, the impacts would not be cumulatively considerable (less than significant with mitigation).

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the project's contribution to the significant cumulative environmental effects, which are identified and described on Draft EIR pp. 3.5-39 to 3.5-40. This change is identified in the form of mitigation measure GEO-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

2.4.6 Greenhouse Gas Emissions

Impact GHG-1: The proposed project would generate GHG emissions, either directly or indirectly, but would not result in a significant impact on the environment.

Emissions Calculations

Construction

Construction of the proposed project would generate GHG emissions from a variety of sources. First, GHG emissions would be generated during construction of the proposed projects in the project area. Once fully

operational, the proposed projects' operations would generate direct GHG emissions from mobile sources (i.e., worker commute trips and periodic facility maintenance visits). Indirect source emissions associated with operation of the proposed project would be generated from electrical consumption to power facilities and cars traveling to and from the visitors center on the Synergy Oil Field site.

Operations

For the Pumpkin Patch site emission sources include cars and trucks going to and from the site, natural gas for space heating, a diesel-powered drilling rig, and other miscellaneous sources. The site would not normally consume electricity from the public grid, but rather electricity would be generated by turbines at the LCWA site. Additional drilling rigs would be in operation on a regular basis at both the Pumpkin Patch and LCWA sites, but would be electric (not diesel powered). Also at both the Pumpkin Patch and LCWA sites would be diesel-powered workover drilling rigs. Oil-containing tanks would be permitted through SCAQMD and equipped with BACT (best available control technology). Tanks at both Pumpkin Patch and LCWA sites would be fixed-roof gas blanket design, which eliminates the direct emissions from tanks. At the LCWA site there would be four gas turbine generator sets to convert natural gas from the wells to electricity. Currently, it is envisioned that these generators would provide all of the electricity needed at the Pumpkin Patch and LCWA sites most of the time. Occasionally, additional power would need to be drawn from the Southern California Energy (SCE) grid. At the visitors center on the Synergy Oil Field site, emissions would be generated by electric consumption for lighting and natural gas consumption for space heating. Emissions from motor vehicles would be associated with cars traveling to and from the visitors center. Recurrent painting of the facilities at all of the individual sites would also contribute to the emissions.

Street trees may be removed or trimmed in accordance with the City of Long Beach's Tree Maintenance Policy and with the appropriate permits from the City of Long Beach Department of Public Works. The potential removal of street trees may result in less carbon sequestration on the site if the trees are actively growing and accumulating a net positive biomass; however, a loss of actively growing street trees would be offset by revegetation from implementation of the wetlands habitat restoration project, which would reestablish carbon sinks and the net effect on carbon sequestration would be little to no change (or potentially positive carbon sequestration if there is substantial revegetation of the wetlands that more than offsets the removal of street trees) and would not affect the project's overall GHG emissions inventory.

The turbines would generate the overwhelming majority of the GHG emissions. The total project GHG emissions, inclusive of the GHG emissions from the turbines, would exceed 10,000 MTCO_{2e}/year.

The turbine emissions would be substantially lower than would otherwise be the case if all electricity were to be provided by SCE. If the project did not invest in turbines, the use of turbine fuel (i.e., natural gas) elsewhere, via the regional natural gas grid, could more than double the project's GHG emissions. Also, the investment in cogeneration design/equipment for the turbines, helped to reduce GHG emissions.

Total Emissions

Total project emissions would be reduced over time as the existing oil field operations³ are gradually phased out. The existing oil field well sites would be phased out over a 40-year period, starting upon the completion and occupation of the new office building and warehouse on the Pumpkin Patch site. The emissions associated

³ Based on the Greenhouse Gas Assessment by Greve & Associates, existing operations generate 22,211 TCO_{2e}/year (Greve & Associates 2017).

with the assumed baseline oil operations would be reduced by 75 percent once building permits are obtained for the office building on the Pumpkin Patch site. Over the next 20 years, half of the existing 53 wells would be plugged and abandoned. This represents an 87.5 percent reduction from the assumed baseline emission levels. By year 40, all wells would be plugged and abandoned, which represents a 100 percent reduction of the baseline emissions.

Under CEQA, the GHG emission impact of a project is based on the incremental or net change in emissions compared to the existing physical conditions in the affected area as they exist at the time the notice of preparation is published (refer to *CEQA Guidelines* Section 15126.2). The net total project GHG emissions, inclusive of the GHG emissions from the turbines and the reduction of GHG emissions from the plugging and abandonment of the existing wells would exceed 10,000 MTCO₂e/year. As result, impacts would be considered significant.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure GHG-1: Cap-and-Trade Program. The project shall comply with the Cap-and-Trade Program as administered by CARB for covered sources. In accordance with the Cap-and-Trade Program, the project shall retire GHG allowances or offsets equal to the project's GHG emissions for covered sources. Retiring the GHG allowances or offsets means the project would acquire them through a number of means carefully controlled by CARB, including obtaining allowances and offsets in CARB-controlled auctions with variable and increasing cost, according to projections and decreasing supply. The project shall also comply with all applicable and required reporting requirements and GHG reduction and trading requirements. The project shall also comply with all applicable Cap-and-Trade regulations as they continue to evolve, such as revisions to the Climate Change Scoping Plan, and become adopted by the California Legislature and/or through CARB's rulemaking process.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.6-21. This change is identified in the form of mitigation measure GHG-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact GHG-2: The proposed project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

HSC Division 25.5 established statewide targets for reducing the State's GHG emissions. The implementing tools of the law (e.g., CARB's *Climate Change Scoping Plan*) are clear that the reductions are not expected to occur uniformly from all sources or sectors. CARB has established strategies for reducing emissions from various sectors including transportation, energy, and stationary sources. CARB has outlined a number of potential strategies for achieving the 2030 reduction target of 40 percent below 1990 levels, including continuation of Cap-and-Trade, sourcing 50 percent or more of the state's electricity by 2030, reducing petroleum use in cars and trucks, and reducing the carbon content of transportation fuels. The proposed project would comply with these future regulations, as promulgated by the USEPA, CARB, CEC, or other agency.

Cap-and-Trade

As required per Mitigation Measure GHG-1, the project would be designed to incorporate efficient technologies and would be consistent with strategies to minimize GHG emissions from stationary sources. Compliance with the Cap-and-Trade Program would ensure facility emissions would be reduced as required by CARB and HSC Division 25.5. The project would contribute GHG emissions as an Electricity Self-Generation entity that is subject to the Cap-and-Trade Program. As such, emissions from the project would be reduced on a sector-wide basis in accordance with the GHG reduction targets of HSC Division 25.5 and future updates by CARB to the Climate Change Scoping Plan and the Cap-and-Trade Program. Currently, the California Cap-and-Trade Program is effective through 2020. CARB's 2017 Climate Change Scoping Plan Update details the "Proposed Scoping Plan Scenario" (proposed scenario) recommending the optimal path to meeting the GHG reduction target represented by SB 32 while providing the widest range of environmental and economic benefits. The proposed scenario includes extending the Cap-and-Trade Program beyond 2020. Under the proposed scenario, the project would continue to be subject to a Cap-and-Trade program, and thus would be consistent with CARB's Scoping Plan.

Stationary Source Best Available Control Technology

The project would include cogeneration and comply with BACT standards for the turbines, comply with applicable SCAQMD rules and regulations (refer to Section 3.2, *Air Quality*, for a list of SCAQMD rules and regulations applicable to the project), and include microgrid system and solar photovoltaic modules to provide efficient energy for the facilities including drilling rigs and supporting equipment, pumps, two electric vehicle charging stations, and other equipment, the project would not conflict with applicable regulations to reduce GHG emissions.

Construction and Mobile Source Emissions

The proposed project would utilize construction contractors that would be in compliance with regulations including the USEPA Heavy Duty Vehicle Greenhouse Gas Regulation and the CARB ACTM that limits heavy-duty diesel motor vehicle idling. Furthermore, the project would accelerate the use of cleaner construction equipment as specified in Mitigation Measures AQ-2 and AQ-3, which require the use of equipment certified to the Tier IV emission controls. Implementation of these measures would ensure that fuel-efficient equipment would be used, which would reduce emissions compared to fleet average equipment. Additionally, as the project is an industrial use, GHG emissions associated with mobile sources would only occur from periodic vehicle trips by workers for inspection and maintenance purposes and visitors to the visitors center, which would not generate substantial emissions. Nonetheless, workers and visitors to the site would utilize vehicles that comply with State motor vehicle emissions standards. Therefore, the project would not conflict with applicable regulations to reduce GHG emissions.

Conclusion

CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with the California Cap-and-Trade Program or other regulatory schemes to reduce GHG emissions.

Given that the project would generate GHG emissions consistent with applicable reduction plans and policies with implementation of Mitigation Measure GHG-1, and given that GHG emission impacts are cumulative in

nature, the project's incremental contribution to significant GHG emissions would be less than cumulatively considerable with mitigation, and impacts would be less than significant with mitigation.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure GHG-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.6-24. This change is identified in the form of mitigation measure GHG-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Cumulative Impacts

Given that the project would generate GHG emissions consistent with applicable reduction plans and policies with implementation of Mitigation Measure GHG-1, and given that GHG emission impacts are cumulative in nature, the project's incremental contribution to significant GHG emissions would be less than cumulatively considerable with mitigation, and impacts would be less than significant with mitigation.

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the project's contribution to the significant cumulative environmental effects, which are identified and described on Draft EIR pp. 3.6-23 to 3.6-24. This change is identified in the form of mitigation measure GHG-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

2.4.7 Hazards and Hazardous Materials

Impact HAZ-3: The project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

Construction

All four individual sites are listed on one or more hazardous materials lists for the presence of active, idle, or plugged oil wells; historical releases of petroleum or PCBs, and/or the presence of landfill materials. The construction activities could encounter hazardous materials associated with these issues, exposing workers or the environment to hazardous materials.

Contaminated Soil

Soil disturbance during construction on the Synergy Oil Field, City Property, and LCWA sites could encounter or further disperse residual contamination in soil and expose construction workers and the environment to

hazardous materials. Potential impacts related to soil contamination during demolition and construction on the Synergy Oil Field and City Property sites is analyzed above in Impact HAZ-1. Potential impacts relative to the LCWA site are discussed below.

Based on the results of previous site investigations on the LCWA site, increased concentrations of arsenic, vanadium, lead, and nickel were identified in two locations, and additional soil sampling was conducted at two sites in the central portion of the project site.

Based on the absence of regulatory “actionable” concentrations of arsenic, lead, nickel and vanadium collected from “step-out” samples proximal to prior sample locations, the elevated results from previous investigations are determined to be an anomaly. Additionally, prior soil sampling (AEC 2004) conducted at bracketed depths around the samples exhibiting these anomalous results were within what can be considered normal “background” range. No further investigation and/or remediation is required, and no impacts are anticipated.

Landfill Materials

The Pumpkin Patch site has a buried closed landfill. The landfill materials would be located below the proposed location of the oil processing facility. Depending on the results of ongoing testing for contaminants, the landfill materials may need to be removed. If removed, there is a potential for hazardous materials to be encountered, which could expose workers and the environment to hazardous materials. Such risks could occur during excavation or drilling, stockpiling, handling, or transportation of soils or landfilled materials that have been contaminated by hazardous materials.

Impacts resulting from the potential release of or exposure to hazardous materials in soil, landfilled materials, and/or groundwater would be reduced to a less-than-significant level with implementation of Mitigation Measures HAZ-1, Health and Safety Plan, and HAZ-2, Soil, Landfill Materials, and Groundwater Management Plan. With implementation of Mitigation Measures HAZ-1 and HAZ-2, the potential for harmful exposure to hazardous materials present in soil, landfilled materials, or groundwater during construction would be reduced to a less-than-significant level.

It may be necessary to remove some or all of the buried landfill under the Pumpkin Patch. If determined necessary, this work would consist of the following phases: (1) remove the dry trash from the site and haul to a disposal facility (transfer station or landfill) depending on the acceptance criteria of the transfer station and landfills and (2) using excavation equipment with a dredging bucket, remove wet trash so the water would be allowed to drain within the confines of the excavation. Any residual water brought to the surface would be contained for transfer to an on-site liquid retention Baker-type tank; the collected water would be sampled and subsequently disposed at an approved off-site facility. The wet trash would be allowed to drain on a rack in the excavation pit before being hauled to a disposal site.

Analytical testing of the materials to be removed would characterize the waste as hazardous (Class I), designated (Class II), or nonhazardous (Class III), and identify the appropriate disposal location. Designated and nonhazardous waste would be hauled to a Class II or III disposal facility, and hazardous waste would be hauled to a Class I facility, likely the Kettleman Hills Landfill. It is assumed that approximately 63,000 cubic yards of waste would be exported, and approximately 45,000 cubic yards of clean dirt would be imported. With compliance with regulations, and with implementation of Mitigation Measures HAZ-1 and HAZ-2, the potential for harmful exposure to hazardous materials present in soil, landfilled materials, or groundwater during removal of the landfill would be reduced to a less-than-significant level.

Operation

Once the construction activities have been completed, the hazardous materials sites issues described above would have been addressed. The only remaining potential exposure would be due to accidents involving the oil production activities, previously addressed in Impact HAZ-1.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure HAZ-1: Health and Safety Plan. The construction contractor(s) shall prepare and implement site-specific Health and Safety Plans as required by and in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. This Plan shall be submitted to the project applicant and the Long Beach Hazardous Materials Division for review prior to commencement of construction. The Health and Safety Plan shall include, but is not limited to, the following elements:

- Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site Health and Safety Plan;
- A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals;
- Specified personal protective equipment and decontamination procedures, if needed;
- Emergency procedures, including route to the nearest hospital; and
- Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered. These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release, notifying The Long Beach Hazardous Materials Division, the LARWQCB, and DOGGR, as appropriate, and retaining a qualified environmental firm to perform sampling and remediation.

Mitigation Measure HAZ-2: Soil, Landfill Materials, and Groundwater Management Plan. In support of the Health and Safety Plan described in Mitigation Measure HAZ-1, the contractor shall develop and implement a Soil, Landfilled Materials, and Groundwater Management Plan that includes a materials disposal plan specifying how the construction contractor will remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The Plan must identify protocols for soil and landfilled materials testing and disposal, identify the approved disposal site, and include written documentation that the disposal site can accept the waste. Contract specifications shall mandate full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in excavated soil or dewatering effluent.

As part of the Soil and Groundwater Management Plan, the contractor shall develop a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent), if encountered, will be handled and disposed of in a safe, appropriate and lawful manner. The Plan must identify the locations at which groundwater dewatering is likely to be required, the test methods to analyze groundwater for hazardous materials, the appropriate treatment and/or disposal methods, and approved disposal site(s), including written documentation that the disposal site can accept the waste. The

contractor may also discharge the effluent under an approved permit to a publicly owned treatment works, in accordance with any requirements the treatment works may have.

This Plan shall be submitted to the project applicant and Long Beach Hazardous Materials Division for review and approval prior to commencement of construction.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.7-35 and 3.7-36. These changes are identified in the form of Mitigation Measures HAZ-1 and HAZ-2. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.8 Noise

Impact NOI-1: The project would not result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Construction

Project construction would generate noise on site from construction activities and the operation of construction equipment.

Per the City of Long Beach Noise Ordinance Section 8.80.202, Construction Activity, project construction would be required to occur within defined hours. The City's Noise Ordinance does not establish construction noise level limits. Therefore, the project would be constructed in conformance with the City of Long Beach Noise Ordinance.

Operation

Project operation would generate off-site vehicle traffic noise from project vehicle traffic on area roadways in support of site operations, and would generate on-site noise from operating oil wells, as discussed separately below.

The City's Noise Ordinance establishes operational noise criteria of allowable noise levels for percentages of an hour over a given time of day period within a land use district. Greater noise level limits are allowed during the day (7:00 a.m. to 10:00 p.m.) as compared to the more noise-sensitive nighttime period (10:00 p.m. to 7:00 a.m.). The Synergy Oil Field, Pumpkin Patch, and City Property sites are located in land use District 1 (which is generally defined predominantly residential with other land use types also present); the LCWA site is located in District 4 (which is generally defined as predominantly industrial with other land types use also present).

Additionally, the City exempts oil and gas wells from normal well servicing, remedial, or maintenance work performed within an existing well, which does not involve drilling or redrilling and which is restricted to the hours between 7:00 a.m. and 7:00 p.m., exclusive of weekends and holidays, in residential areas.

Off-Site Traffic Noise

The project is not likely to generate a substantial number of vehicle trips; therefore, a detailed traffic study has not been prepared for the project. Assuming a worst-case estimate of approximately 200 vehicle trips per day to the Pumpkin Patch site associated with oil production and drilling activities, would result in a 0.02 Dba increase in traffic noise levels along PCH, which would be imperceptible.

Assuming a worst-case estimate of approximately 500 vehicle trips per day to the Synergy site to the visitors center, would result in a less than a 0.1 dB increase in traffic noise levels along 2nd Street, which would be imperceptible. Off-site traffic noise would not expose people to or generate noise levels in excess of the applicable noise standards.

On-Site Oil Production Operations

The Pumpkin Patch and LCWA sites would be developed with oil production facilities, which would generate noise from operational oil wells. The design for the oil production facilities is in its initial phases; therefore, the specific equipment has not yet been selected. The analysis conducted as part of the Draft EIR does not represent a final noise analysis of the proposed oil production facilities, which would be required prior to construction permits. Rather, the analysis determines whether the project would feasibly comply with the City's Noise Ordinance, as required by CEQA. Prior to the issuance of any grading permits, the City would work with the developer to ensure the proper selection during the final design of equipment and control devices (e.g., mufflers, enclosures, etc.) that meet City requirements would ensure project compliance with City noise regulations.

Pumpkin Patch Site

The Pumpkin Patch site would be developed with 50 operational oil wells, which would include the following components:

- Electric submersible pumps would be incorporated down in the wells.
- Three injection pumps plus a backup would likely be used on site.
- One electric drilling rig would also be located on site, which would utilize a façade as a noise barrier around the drilling rig to reduce drilling noise levels and improve visual impacts.
- A flare and blowdown would be located on site for emergency situations only; therefore, as emergency equipment, it is exempt from the City's Noise Ordinance (Section 8.80.250).
- An 18-foot-high masonry wall would surround the Pumpkin Patch site on three sides, and a 10-foot-high wall along the back of the site would serve as a noise barrier.

The loudness of the equipment, the distance from the site to noise sensitive receptors, and the noise barrier effect of the perimeter wall were accounted for in the calculations.

The results of the calculations indicate that the noise levels projected for oil production would be less than the ambient noise levels and would not exceed the Noise Ordinance criteria. Therefore, the noise impact from oil production operations at the Pumpkin Patch site would result in a less-than-significant impact, based on proper facility design. A mitigation measure is proposed to ensure that the facility is properly designed.

LCWA Site

The LCWA site is proposed to be developed with 70 operating oil wells, including injection pumps, gas turbines, compressor, and a drilling rig, similar to the Pumpkin Patch site. The LCWA site would be surrounded by a 10-foot-high masonry wall, which would serve as a noise barrier.

The site is relatively isolated from residential and commercial development. No sensitive species have been identified on the LCWA site; therefore, no impact to sensitive species from operational noise is anticipated. Noise levels were calculated for the residential and commercial development, including equipment noise, distance to the receptors, and the noise barrier effect of the wall. The results of the calculations

that the projected operational noise levels for the LCWA site's oil production are very low for the two locations, which are much lower than the measured ambient noise levels and noise limits of the City of Long Beach Noise Ordinance. Therefore, the noise impact from oil production operations at LCWA would result in a less-than-significant impact, based on the facility being properly designed, for which a mitigation measure is prescribed to ensure that the facility is properly designed.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure NOI-1: Prior to issuance of the permits for the drilling and drilling equipment at the Pumpkin Patch and LCWA sites, a detailed noise assessment shall be prepared to demonstrate that the resultant noise levels from oil production activities will meet the City of Long Beach Noise Ordinance limits. The operational noise assessment shall be prepared by a qualified acoustical consultant who is a Registered Engineer in the State of California. The report shall document the specific sources of noise and detail any measures, if any are required, to ensure that operational noise is maintained within the City's standards. These measures will be incorporated into the project plans. The report shall be completed and approved by the City prior to issuance of building permits. Additionally, once the sites are in operation, noise measurements should be conducted within 60 days that demonstrate both oil production sites are in compliance with the City's Noise Ordinance. If any exceedances are detected, the City shall require that noise attenuation measures, such as equipment enclosures, mufflers, etc. are implemented, and require additional noise measurements be taken to demonstrate compliance with the City's Noise Ordinance.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.11-18. This change is identified in the form of mitigation measure NOI-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact NOI-3: The project would not result in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Operation

As discussed under Impact NOI-1, project operation would generate off-site vehicle traffic noise from project vehicle traffic on area roadways in support of site operations, and would generate on-site noise from operating oil wells and production facilities, as discussed separately below.

Off-Site Traffic Noise

As discussed under Impact NOI-1, the oil production facilities and drilling operations would generate a maximum of approximately 200 trips per day, which would result in a traffic noise increase of approximately 0.02 dBA along PCH. Therefore, the increase would be imperceptible and less than the significance threshold of a 3 dB increase.

The visitors center on the Synergy Oil Field site would attract visitors to the site via 2nd Street, which in the vicinity of the site has ADT volumes of approximately 38,000 vehicles per day. Assuming a worst-case estimate of approximately 500 vehicle trips per day to the visitors center, applicable to both construction and operational activities, would result in a less than a 0.1 dB increase in traffic noise levels along 2nd Street. Therefore, the increase in traffic noise on 2nd Street due to the project would be much less than the significance threshold of a 3 dB increase.

On-Site Oil Production Operations

As discussed under Impact NOI-1, the Pumpkin Patch and LCWA sites would be developed with oil production facilities, which would generate noise from operational oil wells.

Pumpkin Patch Site

As discussed under Impact NOI-1, based on preliminary design, noise levels projected for oil production would be less than the ambient noise levels. Therefore, there would be no increase in noise level at the nearest receptor, which would be less than the significance threshold of a 3 dB increase. Therefore, the noise impact from oil production operations at the site would result in a less-than-significant impact, if the facility is properly designed; however, a mitigation measure is proposed to ensure that the facility is properly designed.

LCWA Site

As discussed under Impact NOI-1, the projected operational noise levels for the LCWA oil production and power generation would be very low at the nearest residential location, and much lower than the measured ambient noise levels. Therefore, there would be no increase in noise level at the nearest receptor, which would be less than the significance threshold of a 3 dB increase. Therefore, the noise impact from oil production operations at the site would result in a less-than-significant impact, if the facility is properly designed; however, a mitigation measure is proposed to ensure that the facility is properly designed.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure NOI-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.11-21. This change is identified in the form of mitigation measure NOI-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact NOI-4: The project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Construction

As described under Impact NOI-1, project construction would generate noise on site from construction activities and the operation of construction equipment, including drilling rigs, trucks, graders, bulldozers, and concrete mixers. In general, the type of equipment that would be used for construction and demolition would be similar to the equipment used for most construction projects using heavy equipment. Typical construction equipment that would be employed for this project includes graders, scrapers, front loaders, trucks, backhoes, concrete mixers, and concrete pumps. The maximum noise level (L_{max}) for most of the equipment that would be used during the construction ranges from 80 to 95 dBA at 50 feet.

Synergy Oil Field Site

At the Synergy Oil Field site, restoration activities would include grading to clear some berms and establish other berms, and constructing a sheet pile wall approximately 4,730 feet long. The grading and sheet pile driving would last approximately 4 to 6 months and occur outside of the nesting season for bird species utilizing the site. Site restoration activities would use graders, trucks, and a sheet pile driver.

The nearest noise-sensitive receptor is a mobile home park approximately 330 feet north of the nearest grading activity of the site. Restoration activities in the area, nearest to the mobile home park, could last up to 6 months. The predicted maximum and average construction noise levels at the nearest residence would be higher than ambient levels, and potential significant noise impacts would occur. Mitigation measures are proposed.

In addition to site restoration, sheet pile driving would occur as close as approximately 621 feet from the mobile home park over approximately 2 to 6 months to install the 4,730-foot barrier. Sheet pile driving can be either impact or vibratory; the vibratory method is quieter than the impact pile driving. Both methods are explained below.

At the mobile home park, the noise levels associated with vibratory pile driving would have maximum and average noise levels well above ambient conditions and would result in speech interference when the residents are outside. Therefore, vibratory sheet pile driving noise would potentially result in a significant impact. Mitigation measures are prescribed to lessen this impact.

At the mobile home park, the noise levels associated with impact pile driving would have maximum and average noise levels well above ambient conditions and would result in speech interference when the residents

are outside. Therefore, impact sheet pile driving noise would potentially be a significant impact. Mitigation measures are prescribed to lessen this impact. Since vibratory pile driving is now commonly used, and impact pile driving is significantly louder, vibratory pile driving is prescribed to be used.

In addition to mobile home park, the site restoration also considered the potential impact of construction noise on sensitive animal species, specifically special-status bird species during nesting and breeding activity. To avoid noise impacts to sensitive bird species that utilize the site, all grading and sheet pile driving activity would be conducted outside of the nesting season (March 1 to August 15), and a mitigation measure has been recommended to ensure that this is implemented. Outside of the nesting season, birds use the site for foraging mostly in the area of the Steamshovel Slough. As the Slough will not be affected during restoration activities, the birds would still be able to continue to forage on site, and this impact is not considered significant (see Draft EIR Section 3.3, *Biological Resources*, for more details).

In the southern portion of the site, due to the distance to the nearest sensitive receptors and the low level of construction anticipated and occurring during the daytime hours allowable under the City's Noise Ordinance, the construction noise impact would be less than significant for the southern portion of the site.

City Property Site

The western edge of the City Property site abuts a commercial/retail center. Commercial buildings are usually not considered noise sensitive. Well removal has the potential to increase peak noise levels on occasion. The noise impact is considered to be less than significant because the office buildings are not noise sensitive and only four wells would be removed in close proximity to the offices.

The potential impact of noise on sensitive species, specifically sensitive bird species would be similar to those described above for the Synergy site, and the same mitigation would apply (see Draft EIR Section 3.3, *Biological Resources*, for more details).

Pumpkin Patch Site

The nearest noise-sensitive area to the Pumpkin Patch site would be the residential area approximately 830 feet southwest of the site, which is exposed to vehicle traffic noise from PCH. The predicted maximum and average construction noise levels at the nearest residences would be substantially less than ambient noise levels.

LCWA Site

At the LCWA site, the nearest noise-sensitive area is the residential area approximately 1,825 feet southeast of the site, which is exposed to significant levels of traffic noise from 2nd Street and is surrounded by a soundwall. The predicted maximum and average construction noise levels at the nearest residence would be substantially less than ambient noise levels.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure NOI-2: Staging Areas and Mufflers. Staging areas for construction shall be located away from existing off-site residences. All construction equipment shall use properly operating mufflers. These requirements shall be included in construction contracts.

Mitigation Measure NOI-3: Limit Grading and Pile Driving. All grading and sheet pile driving activities shall be conducted outside of the nesting season for sensitive bird species. The nesting season has been identified as extending from March 1 to August 15. (Refer to the Biological section of the EIR for more information on potential impacts to bird species and the corresponding mitigation.)

Mitigation Measure NOI-4: Prohibit Impact Sheet Pile Driving. Impact sheet pile driving should be prohibited on the Synergy Oil Field site. Only vibratory sheet pile driving shall be employed.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.11-24 and 3.11-25. These changes are identified in the form of Mitigation Measures NOI-2, NOI-3, and NOI-4. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.9 Public Services

Impact PS-1: The project would not result in the need for new or physically altered facilities in order to maintain acceptable response times for fire protection and emergency medical services.

Construction

Activities associated with demolition and construction requiring electrical power or fuel or handling oil would increase the fire risk on site and subsequent potential need for fire protection services. Construction would increase the number of persons on site, which could increase the need for emergency medical services. Construction of the proposed facilities, particularly oil-related facilities, could result in fire hazards on site. The presence of construction workers on the project site would be temporary, as the construction period for the proposed project would last approximately 4 years (for the most intense construction). Additionally, as part of Mitigation Measure PS-1, fire safety prevention training would be given to construction workers regarding activities that pose a potential fire risk, such as handling of oil and other flammable liquids and welding and cutting. Given the short construction duration and implementation of Mitigation Measure PS-1, it is not anticipated that the proposed project would substantially increase the service demand for fire protection and emergency medical services in the area.

Operation

Introduction of new structures and operations on site could increase the fire hazard potential of the area and the subsequent potential need for fire protection services. Specifically, oil production facilities and microgrid energy systems associated with the oil operations on site could increase fire hazards. More people on site could increase the need for emergency medical services.

Fire would be managed by a separate control system that interfaces with the main unit control system. The detection of combustible gas concentrations above established levels generates an alarm or a package shutdown, as appropriate. The detection of fire or excessive heat results in the immediate shutdown of the package and activation of the fire suppression system using CO₂ as a distinguishing agent.

With respect to the oil production facilities, the potential for fire due to a risk of explosion is mitigated through the use of BOPE systems on all wells. A BOPE system is a safety system used during drilling to prevent uncontrolled release of formation fluids, and allows for the shut off of flow to prevent spills and release of materials. The BOPE system would be designed to handle the maximum possible pressure expected at the wellhead.

BOPE specifications are set by DOGGR.

In addition to the BOPE on the wells, a foam system for fire suppression will be installed on the oil storage tanks to address the potential for fires involving these facilities.

The project facilities would be protected by a firewater loop fed by a Long Beach Water Department (LBWD) water main. The main firewater loop line within the site would be continuously pressurized. The system would supply water to multiple hydrants, firewater monitors and foam monitors located on the project site. Each fire hydrant would be equipped with a fire hose and nozzles. The local LBWD water main can provide adequate flow and pressure to the site with no additional need for firewater storage tank or pumps. The new office building would be provided with a sprinkler system in accordance with City requirements.

Although there will be an increase in the number of employees on site, especially during the drilling stages, the increase is not considered significant with respect to the impact on public services.

Although the proposed visitors center would increase the number of daytime visitors and the employee population on the Synergy Oil Field site, the proposed project would be required to pay the City's Fire Facilities Impact Fee as part of its building fees to compensate for anticipated impacts to fire services from its operation. Each oil barrel produced by the project would also be taxed as part of the City Proposition H, which funds fire protection services components such as salaries, worker benefits and academies. Therefore, it is not expected that the proposed project would result in the need for new or physically altered facilities to maintain acceptable response times for fire protection and emergency medical services.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure PS-1: Fire Prevention and Protection Training. Prior to the start of construction activities, the Applicant shall prepare and conduct a fire prevention and protection training for all construction personnel associated with the proposed project. Topics shall include general fire prevention practices such as avoiding smoking on site as well as specific preventative measures pertaining to high-fire-risk activities including handling of oil and welding and cutting. Personal protection measures including the locations of fire extinguishers on the project site and site exit routes should also be disclosed to ensure construction worker safety in the event of a fire. The material for the training shall be obtained in consultation with the Long Beach Fire Department.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.13-8. This change is identified in the form of mitigation measure PS-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

2.4.10 Tribal Cultural Resources

Impact TCR-1: The project would not cause a substantial adverse change in the significance of a tribal cultural resource, as defined in CEQA PRC Section 21074(a) or (b).

Construction

The results from the search of the Sacred Lands File (SLF) at the Native American Heritage Commission (NAHC) indicated that potential tribal cultural resources have been recorded within the project area. As required by AB 52, further consultation between the City and the Gabrieleño Band of Mission Indians—Kizh Nation and the Soboba Band of Luiseño Indians—occurred. As a result of this consultation, no tribal cultural resources, as defined in both (a) and (b) of PRC Section 21074, were identified within the project area; however, both Tribes stressed the cultural resources sensitivity of the project site, and the Gabrieleño Band of Mission Indians—Kizh Nation indicated that ancestral village sites are known to have been located in the area. No tribal cultural resources as defined in PRC Section 21074(a)(1), resources determined by the lead agency in its discretion and supported by substantial evidence to be significant as defined in PRC Section 21074(a)(2), or a cultural landscape as defined in PRC Section 21074(b) have been identified as a result of the consultation. Nonetheless, because both Tribes recommended Native American monitoring of all ground-disturbing activities, the City has included Native American monitoring as a mitigation measure in Draft EIR Section 3.4, *Cultural Resources*, for the discovery of archaeological resources, and it is included here as mitigation for tribal cultural resources. With implementation of Mitigation Measures CUL-5 through CUL-7 from Section 3.4, *Cultural Resources*, project impacts to tribal cultural resources as a result of construction would be less than significant with mitigation.

Operations

No tribal cultural resources as defined at PRC Section 21074(a) and (b) have been identified as a result of the consultation conducted for the project. Project impacts as a result of operations would be less than significant.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Refer to Mitigation Measures CUL-5 and CUL-7.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.16-6. These changes are identified in the form of Mitigation Measures CUL-5 and CUL-7. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Cumulative Impacts

Since no tribal cultural resources were identified within the project site, there would be no cumulative impacts to known tribal cultural resources; however, the Gabrieleño Band of Mission Indians—Kizh Nation has indicated that the project area is sensitive for archaeological and other resources that might be identified as

tribal cultural resources, and both the Gabrieleño and the Soboba Band of Luiseño Indians have requested Native American monitoring during project construction. While there is the potential for impacts to unknown tribal cultural resources, such as those that might be discovered during ground-disturbing activities during project construction, Mitigation Measures CUL-5 through CUL-7, which provide for cultural resources sensitivity training, Native American monitoring, and treatment protocols for unanticipated discoveries, would ensure that impacts are reduced to a less than significant level. Taken together, implementation of these mitigation measures would ensure that the project would not have an impact on tribal cultural resources. No impacts to tribal cultural resources are anticipated during project operations. Therefore, cumulative impacts during operations would not be cumulatively considerable (less than significant).

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the project's contribution to the significant cumulative environmental effects, which are identified and described on Draft EIR p. 3.16-7. This change is identified in the form of mitigation measures CUL-5 through CUL-7. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.11 Energy Consumption

Impact EN-1: The project would not result in the wasteful, inefficient, and unnecessary consumption of energy during construction, operation, and/or maintenance.

Construction

Compliance with the CARB anti-idling regulation and implementation of Mitigation Measure AQ-2 requiring the use of equipment certified to the Tier 4 emissions standards would result in fuel savings in the absence of these regulations and measures. While these regulations were originally adopted to reduce construction emissions, they would also result in energy savings from the use of more fuel-efficient engines. Construction of the project would utilize fuel efficient equipment consistent with state and federal regulations, and would comply with state measures to reduce the inefficient, wasteful, and unnecessary consumption of energy.

Electricity used during construction to provide temporary power for lighting and electronic equipment (e.g., computers, etc.) and to power certain construction equipment would generally not result in a substantial increase in on-site electricity use. Overall, construction activities would require minimal electricity consumption and would not be expected to have any adverse impact on available electricity supplies and infrastructure. Similarly, natural gas is not anticipated to be consumed in any substantial quantities during construction of the project; however, if natural-gas-powered equipment are used, it would offset (i.e., replace) the diesel-fueled equipment assumed in the analysis presented in the Draft EIR and not result in an overall change in the project's energy impacts.

In addition, the project would comply with future applicable regulatory mandates that the State Legislature and/or CARB may adopt in future years to improve heavy-duty construction efficiency and reduce fuel consumption as part of the State's mandate to reduce GHG emissions.

The project would represent a very small fraction of the energy sales from regional providers and state transportation fuel supplies.

Based on the available data, construction would utilize energy for necessary on-site activities and to transport construction materials and demolition debris to and from the site. It is reasonable to conclude that idling restrictions and the use of cleaner equipment would result in less fuel combustion and energy consumption and minimize project construction-related energy use. Therefore, construction of the project would not result in the wasteful and unnecessary consumption of energy.

Operations

Project operations would result in energy demand from worker and visitor trips, truck trips, workover drilling rigs, cranes, forklifts, and the four turbines. The four turbines (4.5 MW each; 18 MW total) with heat recovery steam generators for cogeneration would use natural gas byproduct from the oil wells to provide the majority of power for the Pumpkin Patch and LCWA facilities, which would result in substantial electricity and natural gas energy savings. The turbines would provide electricity for the electric drilling rigs at the Pumpkin Patch and LCWA sites, lighting, pumps and other operational equipment, and electric vehicle charging stations. The project would purchase a limited amount of power from SCE to provide electricity to the visitors center and, when needed to supplement turbine electricity, for the Pumpkin Patch and LCWA sites. SCE is subject to the Renewables Portfolio Standard, requiring utility providers to increase procurement from eligible renewable resources over time to 50 percent by 2030. Therefore, over time, the project's energy use will become cleaner and more efficient as SCE expands its renewables portfolio.

Compliance with the CARB anti-idling regulation and implementation of Mitigation Measure AQ-3 (refer to Section 3.2, *Air Quality*) requiring the use of drilling rigs certified to the Tier 4 emissions standards would result in fuel savings in the absence of these regulations and measures. On-road equipment and vehicles (i.e., trucks, worker vehicles, and visitor vehicles) would also be expected to require less fuel resources as more efficient trucks and vehicles that achieve greater fuel economy compared to current standards replace older model year trucks and vehicles.

The project would represent a very small fraction of the energy sales from regional providers and state transportation fuel supplies.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure AQ-3.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.18-14. This change is identified in the form of mitigation measure AQ-3. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact EN-3: The project would be consistent with existing energy standards, policies, and regulations.

Implementation of the project would utilize contractors that demonstrate compliance with applicable regulations governing the accelerated retiring, replacing, repowering, or retrofitting of older, less-efficient engines with newer emission-controlled models. The project would require that construction and operational equipment meet the fuel-efficient Tier 4 emissions standards (refer to Mitigation Measures AQ-2 and AQ-3). In addition, contractors would be required to comply with the anti-idling ATCM that prohibits diesel-fueled commercial vehicles greater than 10,000 pounds from idling for more than 5 minutes at any given time. While intended to reduce construction emissions, compliance with these emissions regulations would also result in efficient use of construction-related energy and the minimization or elimination of wasteful and unnecessary consumption of energy as discussed under Impact EN-1.

The four turbines (4.5 MW each; 18 MW total) would adhere to SCAQMD's BACT standards and stationary source permitting regulations established by the SCAQMD. Additionally, the office building would be subject to applicable regulations outlined by the Title 24 Building Standards Code and the CALGreen Code. The CALGreen Code includes resource, water, and design measures aimed at increasing building energy and water efficiency and decreasing waste. Implementation of such measures would increase energy efficiency at the office building and ensure consistency with building regulations.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Refer to Mitigation Measures AQ-2 and AQ-3.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.18-15. This change is identified in the form of Mitigation Measure AQ-2 and AQ-3. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

2.5 Findings on Significant and Unavoidable Impacts

The following summary describes the unavoidable adverse impact of the proposed project where either mitigation measures were found to be infeasible, or identified mitigation measures would not lessen impacts to a less-than-significant level.

2.5.1 Air Quality

Impact AQ-2a: The project would violate the air quality standard and contribute substantially to an existing or projected air quality violation for construction-related VOC and NO_x emissions.

Construction

Construction impacts would be short-term and limited to the period when construction activities are taking place. None of the individual phases of construction would exceed the SCAQMD regional thresholds; however, some of the phases of construction could overlap with other phases of construction. If all phases of construction occurred simultaneously, then the emissions for VOC and NO_x would exceed the thresholds. The emissions for CO, SO_x, PM₁₀, and PM_{2.5} would not be exceeded even if all of the phases of construction occurred at the same time.

The likely worst-case overlap for VOC and NO_x emissions is during a time when five construction phases are underway. The VOC emissions during this period would represent the actual worst case for the project. Mitigation Measure AQ-1 would be recommended to reduce the VOC impacts. Implementation of the VOC mitigation measures would reduce VOC impacts to a less-than-significant level. Implementation of the VOC Mitigation Measure AQ-1 would reduce VOC impacts to a less-than-significant level. The NO_x emissions during this period would total 224.5 pounds per day and represent the actual worst case for the project. Mitigation Measure AQ-2 is recommended to reduce the emissions; however, there are no reasonable and feasible measures that can reduce the emissions to below 100 pounds per day. Therefore, construction of the project would result in a significant and unavoidable regional air quality impact due to regional NO_x emissions. Mitigation measures would also be recommended to reduce the VOC impacts.

Mitigation Measures

Mitigation measures AQ-1 would reduce the short-term emissions of VOC to a level of less than significant. Mitigation Measures AQ-2 and AQ-4 would help reduce NO_x emissions, however, conservatively assuming overlapping construction phases, regional NO_x emissions for construction of the proposed project would remain significant and unavoidable.

Please refer to Mitigation Measures AQ-1, AQ-2, and AQ-4 as set forth in these Findings.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.2-24 and 3.2-25. These changes are identified in the form of Mitigation Measures AQ-1, AQ-2, and AQ-4. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

The City finds that there are no other mitigation measures that are feasible, taking into consideration specific economic, legal, social, technological or other factors, that would mitigate this impact to a less-than-significant level, and, further, that specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the alternatives identified in the EIR, as discussed in Section 2.6 of these Findings (Public Resources Code

Sections 21081(a)(1), (3); Guidelines Sections 15091(a)(1), (3)). As described in the Statement of Overriding Considerations, the City has determined that this impact is acceptable because specific overriding economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the proposed project outweigh its significant effects on the environment.

Impact AQ-3a: The project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) during construction.

The project area is located within the SCAB, which is considered the cumulative study area for air quality. Because the SCAB is currently classified as nonattainment area for ozone, PM₁₀, and PM_{2.5}, cumulative development consisting of the proposed project along with other reasonably foreseeable future projects in the SCAB as a whole could violate an air quality standard or contribute to an existing or projected air quality violation. Based on SCAQMD's cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants (VOC, CO, NO_x, SO_x, PM₁₀, and PM_{2.5}) that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard.

The proposed project would exceed regional significance thresholds for construction-related VOC and NO_x emission. Implementation of Mitigation Measure AQ-1 would reduce construction-related VOC emissions to a less-than-significant level. Mitigation Measure AQ-2 and AQ-4 would reduce construction-related NO_x emissions; however, the NO_x emissions would still exceed the threshold. Since Mitigation Measures AQ-2 and AQ-4 require the use of construction equipment that meet the most stringent emissions standards, there are no feasible measures to reduce the construction NO_x emissions to less than the threshold. Therefore, the short-term construction NO_x emissions would result in a cumulatively considerable net increase and impacts would be significant and unavoidable.

Mitigation Measures

Mitigation measures AQ-1 would reduce the short-term emissions of VOC to a level of less than significant. Mitigation Measure AQ-2 and AQ-4 would be aimed at reducing NO_x emissions, however, conservatively assuming overlapping construction phases, regional NO_x emissions for construction of the proposed project would be significant and unavoidable.

Refer to Mitigation Measures AQ-1, AQ-2, and AQ-4.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.2-30. These changes are identified in the form of Mitigation Measures AQ-1, AQ-2, and AQ-4. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

The City finds that there are no other mitigation measures that are feasible, taking into consideration specific economic, legal, social, technological or other factors, that would mitigate this impact to a less-than-significant

level, and, further, that specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the alternatives identified in the EIR, as discussed in Section 2.6 of these Findings (Public Resources Code Sections 21081(a)(1), (3); Guidelines Sections 15091(a)(1), (3)). As described in the Statement of Overriding Considerations, the City has determined that this impact is acceptable because specific overriding economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the proposed project outweigh its significant effects on the environment.

2.6 Findings on Project Alternatives

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. As discussed above, the only impacts under the project that could not be mitigated below a level of significance are construction impacts to air quality standards and criteria pollutants. The DEIR analyzed five alternatives to the proposed project that could reduce some, if not all, of the impacts. Alternative 1 would have the potential to avoid the proposed project's significant and unavoidable construction air quality impacts.

2.6.1 Alternative 1: No Project (No Build)

CEQA Guidelines Section 15126.6(e) requires that an EIR evaluate and analyze the impacts of the "No-Project" Alternative. Under the No Project (No Build) Alternative (Alternative 1), none of the proposed project components would be constructed and implemented and existing conditions would remain unchanged. The Synergy Oil Field site would continue to operate the existing oil production facilities. The City Property site would continue to operate its existing oil production facilities concentrated in the southwestern portion and northern perimeter of the site. The Pumpkin Patch site would continue to be used seasonally for the sale of pumpkins and Christmas trees and closed to the public for the remainder of the year, and would continue to operate its one active oil well. The LCWA site would remain undeveloped and used on a temporary lease basis for equipment storage and staging under this alternative.

Finding

Under Alternative 1, none of the proposed project components would be constructed and implemented and existing conditions would remain unchanged. Therefore, Alternative 1 would avoid the proposed project's significant and unavoidable construction air quality impacts. Under Alternative 1, there would be no construction of the visitors center, new office buildings, nor the oil production facilities and microgrid with four natural gas co-generation turbines. Thus, this alternative would result in no construction emissions, eliminating the significant and unavoidable construction emission impact associated with the proposed project.

Environmental Impacts

All impacts associated with Alternative 1 would be similar or less than the proposed project because there would be no new construction or development, with the following exceptions: odors, energy consumption, sea level rise and conflicts with an applicable land use plan (SEADIP). Under Alternative 1, the existing, older equipment would continue to be used and continue to age resulting in greater potential for odorous fugitive emissions, resulting in a greater impact. Alternative 1 would not relocate the Bixby Ranch Field Office. Therefore, the threat of fault rupture, strong seismic ground shaking, or ground failure would be greater.

Alternative 1 would not make existing structures and infrastructure less susceptible to sea level rise. In addition, because this alternative fails to address existing non-conformities and land use conflicts in the existing SEADIP ordinance, it would have greater impacts than the proposed project with respect to conflicts with applicable land use plans and policies. The No Project (No Build) Alternative would not install the energy-efficient microgrid system or turbines with cogeneration. Thus, Alternative 1 would not be as energy efficient as the project and would have greater impacts with respect to energy consumption.

Ability to Achieve Project Objectives

No new development would be introduced on the project site under Alternative 1 and existing oil production and office building uses would continue. No new oil production facilities would be installed with energy-efficient technology. No visitors center, new office building, or public access trail would be constructed, and no wetlands habitat restoration would occur. As a result, none of the proposed project objectives would be achieved by Alternative 1.

Finding

Although the majority of the impacts associated with this alternative would be similar or less than the proposed project, this alternative would result in greater impacts with respect to odors, energy consumption, sea level rise, and conflicts with an applicable land use plan. In addition, this alternative would not accomplish any of the project objectives. For these reasons, the City rejects Alternative 1.

2.6.2 No Project/Development Consistent with Existing Zoning

The No Project/Development Consistent with Existing Zoning Alternative (Alternative 2) would involve no change to the existing operations on the Synergy Oil Field and City Property sites. Alternative 2 would involve development consistent with existing City zoning (SEADIP) on the Pumpkin Patch and LCWA sites. This could result in commercial development (business park, office commercial, light industrial, restaurants and hotel) on the Pumpkin Patch site and light industrial development on the LCWA site. Alternative 2 could include the construction of nearly 58,000 sf of retail and service uses (such as grocery stores, general retail, banks, personal services, etc.), along with 295 parking spaces on the Pumpkin Patch site. Under this alternative, the LCWA site could be developed with an approximately 26,900 sf of industrial warehouse/office uses and approximately 123 parking spaces. Bikeway and sidewalk improvements may be implemented adjacent to the Pumpkin Patch and LCWA sites in connection with the proposed development on those sites.

Finding

Alternative 2 would not avoid or substantially lessen the proposed project's significant and unavoidable construction air quality impacts. The following describes differences in impacts between the proposed project and Alternative 2. All other impacts not described below would be similar to the proposed project.

Environmental Impacts

Significant and unavoidable impacts associated with construction-related air quality impacts would be lessened because there would be no development on the Synergy Oil Field or City Property site; however, construction emissions under this alternative could exceed the SCAQMD significance thresholds, even after implementation of mitigation measures. Thus, air quality impacts could still be significant and unavoidable for

regional NO_x emissions even with implementation of mitigation measures, and this alternative would not reduce or avoid a significant impact of the proposed project.

Alternative 2 would not conflict with any local policies or ordinances protecting biological resources on all four sites and would not impact ESHAs on the Synergy Oil Field and City Property sites. Potential historical resources impacts associated with the relocation and rehabilitation of the building and memorialization of the Bixby No. 2 Discovery well would not occur. Alternative 2 would result in GHG emissions that would be less than the project because there would be no natural gas co-generation turbines. Alternative 2 would avoid hazards associated with the relocation of the Bixby Ranch Field Office building which includes asbestos-containing material and lead-based paint. Also, no pipeline and utility corridor would be developed on the City Property site which would avoid potential leaks in the corridor. The industrial and commercial facilities proposed under Alternative 2 could generate less hazardous materials than those associated with operation of the new proposed oil production facilities. Impacts related to land use would be less under Alternative 2 compared to those for the proposed project because development of Alternative 2 would not require an amendment to the SEADIP or oil map and the alternative would be consistent with the LCP and applicable CCA policies. In addition, development of Alternative 2 could result in lesser impacts associated with construction-related temporary noise and groundborne vibration impacts because no sheet pile driving would be required and noise impacts associated with the implementation of oil production facilities would not occur. Alternative 2 would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity because development would not be located near sensitive noise receptors. Because no new ground disturbing work is proposed on the Synergy Oil Field and City Property sites under Alternative 2, construction-related impacts to tribal cultural resources would be less than the proposed project.

Alternative 2 would not provide the aesthetic benefit of removing the existing oil production facilities and infrastructure, and the overall improvement of the Los Cerritos Wetlands complex scenic vista would not be achieved. In addition, Alternative 2 could increase the potential for lighting sources on the Pumpkin Patch and LCWA sites to impacts slightly greater than those identified for the proposed project. Alternative 2 could result in greater impacts because it could result in greater employment growth and greater vehicle trips to and from the site as compared to the project; however, growth consistent with existing land use designations would likely be within SCAG employment projects for the region, which are incorporated into the AQMP. The maximum potential regional operational emissions could be greater than the project depending on number of additional vehicle and truck trips. In addition, there would be no net reduction in operational emissions from eliminating existing site activities and implementing emission controls. Therefore, Alternative 2 could result in potentially greater net localized and TAC emission impacts compared to the project. Alternative 2 could result in greater odor impacts as compared to the project because, existing equipment at the oil production facilities would not be replaced. Under Alternative 2, the existing Bixby Ranch Field Office building would not be relocated, and would continue to operate within the Alquist-Priolo fault zone and would remain exposed to fault rupture. Alternative 2 would not include the construction of the proposed project's berm that would increase the level of flood and sea level rise protection from existing conditions at Steamshovel Slough; therefore, impacts associated with sea level rise would be greater under Alternative 2. Also, the Bixby Ranch Field Office building would not be relocated and raised to reduce impacts from sea level rise. Because Alternative 2 would fail to address existing non-conformities and land use conflicts in the existing SEADIP ordinance on the Synergy Oil Field and City Property sites, it would have greater impacts than the proposed project with respect to conflicts with applicable land use plans and policies. Alternative would limit the potential to fully access the mineral resources in the area, unlike the proposed project would provide greater

access to that area. The operational vehicular traffic associated with Alternative 2 could result in a greater increase in ambient noise levels associated with the proposed project. Development of Alternative 2 also has a greater potential to increase temporary and permanent employment. Due to the proposed commercial and industrial development, Alternative 2 could result in a greater increase in demand for public services. Because the new recreational facilities proposed by the project would not be constructed (i.e., visitors center, overlook terrace, Studebaker Trail, and sidewalk and bikeway improvements), potential visitors would be required to go elsewhere and impacts related to the recreation facilities would be greater.

Alternative 2 would only develop sidewalk and bikeway improvements on the Pumpkin Patch and LCWA sites and could require more construction activities and a longer construction period, which could result greater construction-related traffic than the proposed project. Alternative 2 could also result in greater operational traffic associated with the vehicle trips generated by commercial and industrial uses, and therefore greater impacts to the congestion management program. Due to the increase in operational vehicular trips, Alternative 2 could result in greater impacts to emergency access, transportation congestion, and traffic hazards compared to the proposed project. In addition, Alternative 2 could result in a greater long-term generation of wastewater. The proposed development under Alternative 2 could be expected to increase impervious surfaces and could generate greater amounts of runoff. Additionally, construction of new stormwater drainage facilities could be required. The intensity of commercial and industrial uses proposed under Alternative 2 could be expected to result in a greater water demand than the operation of the proposed project, but it is not anticipated to result in a determination by the wastewater treatment provider of inadequate capacity to serve the development, and greater impacts to landfill capacity. Alternative 2 would not install the energy-efficient microgrid system or turbines with cogeneration. Thus, the existing oil production facility would not be as energy efficient as the project and would have greater impacts relative to the project

Ability to Achieve Project Objectives

Alternative 2 would not change the existing operations on the Synergy Oil Field and City Property sites. Alternative 2 could add commercial development to the Pumpkin Patch site and industrial uses on the LCWA site and would include sidewalk and bikeway improvements adjacent to the Pumpkin Patch and LCWA sites, which would improve pedestrian accessibility, as stated in the Project Objectives. Alternative 2 would not upgrade or modernize oil production facilities and would not relocate oil production facilities off the Synergy Oil Field and City Property sites. Alternative 2 would not include any wetland habitat restoration. Furthermore, Alternative 2 would not include development of public access improvements including the visitors center and trail, additional or relocated oil production facilities, increased oil production efficiency, sustainable energy sources or use reduction, and the clean-up of old landfills would not be realized. Therefore, other than the improved pedestrian accessibility via upgraded sidewalks and bikeways, none of the other proposed project objectives would be achieved by Alternative 2.

Finding

Alternative 2 would not avoid or substantially lessen the project's significant and unavoidable construction air quality impacts. While some of the environmental impacts, such as greenhouse gas emissions, temporary noise increases, and use of hazardous materials may be reduced as compared to the proposed project, many of the other environmental impacts of this alternative would be similar or would be greater than the proposed project. In addition, but for sidewalk and bikeway improvements, this alternative would not accomplish any of the project objectives. For these reasons, the City rejects Alternative 2.

2.6.3 Alternative 3: Reduced Production

Reduced Production (Alternative 3) would develop the project; however, the number of new oil wells installed would be reduced on the Pumpkin Patch and LCWA sites. Given the reduction in oil production on the Pumpkin Patch and LCWA sites, the phasing duration for relocating and plugging and abandoning the existing oil wells on the Synergy Oil Field and City Property sites could be extended beyond 40 years under this alternative. The remaining project components would be implemented as a part of Alternative 3. Given the reduced production, the storage tank heights on both the Pumpkin Patch and LCWA sites would be less than 35 feet to be consistent with the current SEADIP height restrictions. The number of turbines on the LCWA site would also be reduced from four to three. The reduced number of new oil wells on the Pumpkin Patch and LCWA sites would result in the reduction of potential oil production of the project under Alternative 3.

Finding

Alternative 3 would still result in a significant and unavoidable air quality impact during construction, similar to the proposed project. The following describes differences in impacts between the proposed project and Alternative 3. All other impacts not described below would be similar to the proposed project.

Environmental Impacts

Impacts associated with greenhouse gas emissions would be reduced, but both the project and the alternative would reduce their impacts to a less-than-significant level through participation in the Cap and Trade Program.

Alternative 3 would result in less construction and operational emissions than the project given the reduced number of new oil wells; however, construction and operation of this alternative would still require mitigation to reduce emissions to below the SCAQMD significance thresholds. Construction and operational localized and TAC emissions would be less than the project; however, this project would still require mitigation to reduce health risk impacts. Alternative 3 would result in less GHG emissions than the project given that three instead of four turbines would be installed; however, Alternative 3 would be required to implement mitigation to obtain GHG allowances or offsets. Less hazardous materials would be generated than those associated with the project because there would be fewer wells than proposed for the project. Impacts associated with landfill capacity would be slightly reduced from the proposed project because less waste would be generated.

Alternative 3 would not be as energy efficient as the project and would have greater energy impacts because the plugging and abandoning of existing oil wells on the Synergy Oil Field and City Property sites could be extended beyond 40 years under this alternative (although 75 percent of the existing wells would be plugged and abandoned upon issuance of building permits). This older equipment would continue to be used for a longer period of time and continue to age, resulting in greater potential for odorous fugitive emissions. Thus, this alternative would result in slightly greater odor impacts as compared to the project due to the potential for an extended abandonment schedule.

Ability to Achieve Project Objectives

The Reduced Production Alternative would develop a reduced number of new oil wells in comparison to the proposed project and would achieve nearly all of the proposed project objectives, including wetlands habitat restoration, recreational access trails, educational opportunities, reduced oil productions on City-owned property, energy-efficient oil production operations, clean-up of old landfills, relocation of oil production wells, enhanced entry points and pedestrian walkability, reduced reliance on imported oil resources, and

sustainable energy sourcing. However, the Reduced Production Alternative would not accomplish the sixth objective because a reduction in the number of wells and turbines as proposed by this alternative would not optimize oil and gas production from the City's reserves.

Finding

Although the majority of the impacts associated with this alternative would be similar or less than the proposed project, this alternative would still result in a significant and unavoidable air quality impact during construction, similar to the proposed project. Even for those impacts for which this alternative would be less than the proposed project, all of those impacts would be mitigated to less than significant by the project. This alternative would accomplish most, but not all of the project objectives. Because this impact would not avoid or substantially reduce the significant adverse impact of the project with respect to short-term air quality impacts, and would not provide the same degree of oil operations and would therefore not optimize oil and gas production which is needed to help fund the costs of wetlands restoration which will be borne by the project, the City finds that this alternative would be less feasible as that term is defined in Public Resources Code Section 21061.1 and *CEQA Guidelines* Section 15364, than the proposed project.

2.6.4 Alternative 4: SCE Substation

Under the SCE Substation Alternative (Alternative 4), a large Southern California Edison (SCE) substation would be constructed at the LCWA site, rather than the microgrid including the turbine power generation and photovoltaic components of the proposed project. Natural gas produced as byproduct of oil extraction would not be used on site, but instead sold into the regional grid or trucked off site. The Synergy Oil Field Site, City Property, and Pumpkin Patch sites would be developed with the same project components as the proposed project. However, under Alternative 4 transmission lines would be required to provide electricity to the Pumpkin Patch site. It is possible that a second substation on the Pumpkin Patch site may also be required under this alternative. Although the project characteristics at the remaining sites would remain unchanged under this alternative, upgrades to SCE transmission lines connecting to the SCE substation on the LCWA site would be required.

Finding

Alternative 4 would still result in a significant and unavoidable air quality impact during construction, similar to the proposed project. The following describes differences in impacts between the proposed project and Alternative 4. All other impacts not described below would be similar to the proposed project.

Environmental Impacts

Alternative 4 would generate less operational localized and TAC emissions because the electricity would be generated by SCE power plants somewhere other than at the turbines on the project site. The natural gas would not be used on site, but transported elsewhere via pipeline and/or trucks and sold to some other entity to use as fuel, and would ultimately be combusted elsewhere. Therefore, the maximum potential operational localized and TAC emissions would be less than the project because there would be less localized emissions. However, this alternative would likely still require mitigation to reduce health risk impacts to a level that is less than significant.

Alternative 4 would result in greater impacts related to air quality plan, greenhouse gas emissions and energy consumption than the proposed project. Overall operational emissions would be greater under Alternative 4 because the natural gas sold into the regional grid or trucked off site would still be combusted by third parties elsewhere, and additional emissions could be generated by mobile sources if off-site trucking is required. Under Alternative 4, the project would result in greater overall GHG emissions because the natural gas sold into the regional grid or trucked off site would still be combusted by third parties. The GHG impacts of this alternative were discussed in the Greenhouse Gas Mitigation White Paper that was included in the Appendices to the Draft EIR. As described in the White Paper, if the project purchased power from SCE, SCE's generation of power to run the equipment for the project would generate between 40,058 and 53,720 MTCO₂EQ/year of GHG emissions. In addition to the emissions generated by SCE's power generation, the natural gas produced by oil production will be shipped offsite (as described above), to generate power elsewhere in the region or state. CalEEMod estimates that 90,255 MTCO₂EQ/year of GHG emissions could be generated by space heating. Therefore, if power were generated by SCE through use of the substation alternative instead of the onsite gas turbines, the total GHG emissions that might be generated would be 143,975 MTCO₂EQ/year, which would be twice as high as the emissions generated by the project.

In addition, Alternative 4 would result in reduced energy efficiency on site by not making use of the combustion of natural gas collected as part of the oil extraction process. Additional energy could be required from mobile sources if off-site trucking is required to transport the fuel to the regional grid or to a third party. Thus, impacts would be greater than the project.

Ability to Achieve Project Objectives

Alternative 4 would replace the turbine power generation, solar and microgrid components of the proposed project that would improve the project's energy efficiency with electric-generated equipment. Therefore, this alternative would not achieve the proposed project's objectives relating to improving the efficiency of oil production operations (Objective 5), developing locally sourced oil and natural gas resources using energy-efficient technology (Objective 10). This alternative would also fail to achieve the proposed project's objective to reduce energy use environmental impacts, efficiently use project-sourced natural gas, and increase project reliability/safety with a microgrid that integrates multiple on-site energy sources with high efficiency controls on energy using equipment (Objective 11). Otherwise, this alternative would accomplish all other project objectives relating to wetland habitat restoration, recreational public access, educational opportunities, relocation of oil production operations, clean-up of old landfills, and improvement of pedestrian walkability.

Finding

Although the majority of the impacts associated with this alternative would be similar to the proposed project, this alternative would still result in a significant and unavoidable air quality impacts during construction, similar to the proposed project. This alternative would also have greater impacts with respect to operational air quality, greenhouse gas emissions and energy consumption as compared to the proposed project. All other impacts associated with this alternative would be similar or less than the proposed project; however, even for those impacts for which this alternative would be less than the proposed project, all of those impacts would be mitigated to less than significant by the project. This alternative would accomplish most, but not all of the project objectives. Because this impact would not avoid or substantially reduce the significant adverse impact of the project with respect to short-term air quality impacts, and would not provide the same degree of oil operations and would therefore not optimize oil and gas production which is needed to help fund the costs of

wetlands restoration which will be borne by the project, and would be less energy efficient, the City finds that this alternative would be less feasible as that term is defined in Public Resources Code Section 21061.1 and *CEQA Guidelines* Section 15364, than the proposed project.

2.6.5 Alternative 5: Relocated Pipeline

Relocated Pipeline (Alternative 5) would relocate the aboveground pipeline and utility corridor on the City Property site; however, the remaining components of this alternative would remain the same as the proposed project.

Finding

Alternative 5 is similar to the proposed project in every regard except for the relocation of the pipeline on the City Property from the western oil service road to the eastern oil service road. With the exception of fewer impacts to sensitive natural communities and wetlands, as described in greater detail below, all impacts associated with the remaining environmental issues would be similar to impacts associated with the proposed project.

Environmental Impacts

Under Alternative 5, the aboveground pipeline and utility corridor route would result in less disturbance to existing wetlands and sensitive vegetation than identified under the proposed project. The aboveground pipeline and utility corridor route would be relocated to a wider oil service road on the eastern side of the City Property site. The eastern oil service road contains larger areas that have been previously disturbed and is lacking in vegetation as compared to the western oil service road. Relocation to the eastern oil service road would avoid freshwater/brackish wetlands and alkali meadow habitat, which would be impacted under the proposed project. Overall, there would be impacts to fewer acres of wetlands and sensitive natural communities under this alternative.

Ability to Achieve Project Objectives

Similar to the proposed project, Alternative 5 would meet all of the project objectives, in that it contains the same components as the proposed project.

Finding

The City Council finds that even though all of the impacts of the project are the same as Alternative 5, because this alternative would reduce project impacts to biological resources to a greater degree than the project, the City finds that this is the environmentally superior alternative. While the location of the pipeline is not subject to the City's Local Site Plan Review process, all proposed physical improvements would need to be approved by the California Coastal Commission (CCC) through a coastal development permit (CDP). The Project is required to submit a Consolidated CDP for review by the CCC, during which the CCC may modify the proposed improvements. The CCC may also provide conditions to the project to be deemed consistent with the local coastal program.

CHAPTER 3

Statement of Overriding Considerations

3.1 Introduction

The City is the Lead Agency under CEQA for preparation, review and certification of the Final EIR for the Los Cerritos Wetlands Oil Consolidation and Restoration Project. As the Lead Agency, the City is also responsible for determining the potential environmental impacts of the proposed action and which of those impacts are significant, and which can be mitigated through imposition of mitigation measures to avoid or minimize those impacts to a level of less than significant. CEQA requires the Lead Agency to balance the benefits of a proposed action against its significant unavoidable adverse environmental impacts in determining whether or not to approve the proposed Project. In making this determination the City is guided by *CEQA Guidelines* Section 15093 which provides as follows:

- (a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposal (sic) project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered “acceptable.”
- (b) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.
- (c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091.

In addition, Public Resources Code Section 21081(b) requires that where a public agency finds that specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in an EIR and thereby leave significant unavoidable effects, the public agency must also find that overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects of the project.

Pursuant to Public Resources Code Section 21081(b) and *CEQA Guidelines* Section 15093, the City has balanced the benefits of the proposed Project against the following unavoidable adverse impacts associated with the proposed Project and has adopted all feasible mitigation measures with respect to these impacts. The City also has examined alternatives to the proposed Project, none of which both meet the Project objectives and is environmentally preferable to the proposed Project for the reasons discussed in the Findings and Facts in Support of Findings.

The City Council of the City of Long Beach, the Lead Agency for this Project, having reviewed the Final EIR, and reviewed all written materials within the City's public record and heard all oral testimony presented at public hearings, adopts this Statement of Overriding Considerations, which has balanced the benefits of the Project against its significant unavoidable adverse environmental impacts in reaching its decision to approve the Project.

3.2 Significant Unavoidable Adverse Environmental Impacts

Although all of the potential long-term Project impacts have been substantially avoided or mitigated, as described in the Findings and Facts in Support of Findings, there remain some short-term Project impacts concerning air quality for which complete mitigation is not feasible. For these impacts, mitigation measures were identified and adopted by the Lead Agency, however, even with implementation of the measures, the City finds that the short-term impacts described below cannot be reduced to a level of less than significant. The impacts and alternatives are described below and were also addressed in the Findings.

The Final EIR identified the following short-term, unavoidable adverse impacts of the proposed Project. All of the impacts identified below are temporary and would occur only during project construction:

- **Impact AQ 2a:** The project would violate the air quality standard and contribute substantially to an existing or projected air quality violation for construction-related VOC and NO_x emissions.
- **Impact AQ 3a:** The project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) during construction.
- **Cumulative Air Quality Impacts:** The project would result in cumulative impacts to air quality during construction.

3.3 Overriding Considerations

The City, after balancing the specific economic, legal, social, technological, and other benefits of the proposed Project, has determined that the short-term, unavoidable adverse environmental impacts identified above may be considered acceptable due to the following specific considerations, which outweigh the unavoidable, adverse environmental impacts of the proposed Project, each of which standing alone is sufficient to support approval of the Project, in accordance with CEQA Section 21081(b) and CEQA Guideline Section 15093.

1. **Restoration of approximately 76.5 acres of wetlands and habitat on the Synergy Oil Field site.** The project proposes to restore approximately 76.5 acres of a historic oil field that was historically part of the Los Cerritos Wetlands complex to a self-sustaining coastal wetlands habitat area. The costs of the wetlands restoration will be borne by the project. The project applicant is also in the process of establishing a wetlands mitigation bank, the sale of credits from which would help recover its restoration costs.
2. **Relocation of the Synergy oil operations off of the Synergy Site which will facilitate the cleanup of the Synergy property and accelerate the removal of oil wells off of the Synergy and City Sites.** Currently, there are 53 active and idle oil wells operating on the Synergy Oil Field site and the City Property site. These wells have been on the property since the 1940s and utilize old equipment. Moreover, the wells are scattered throughout the properties making it difficult to provide for a comprehensive restoration of these properties for open space and habitat purposes. The project would

provide for the phase out of all of the existing oil wells and would replace them with new wells on a much smaller footprint. The consolidation of oil production from over 100 acres to two 5-acre sites with far less habitat area than the current oil fields = would provide a tremendous environmental benefit. Additionally, the voluntary reduction of the oil produced on the Synergy and City sites to an amount equal to 25% of the maximum oil production on both of these properties, as defined in the Project EIR, will provide environmental benefits through the reduction in air emissions.

3. **Construct new entry monuments to the City at the northeast corner of the intersection of Pacific Coast Highway and San Gabriel Flood Control Channel.** The project will provide new entry monument signage on the perimeter of the Pumpkin Patch site which is the border between the City of Long Beach and the City of Seal Beach. For many years, the City has desired to improve the gateway to Long Beach but has had limited opportunity to do so. The project provides the opportunity to construct an entrance to the City without the use of public funds.
4. **Relocate and renovate the Bixby Ranch Field Office building and convert it for use as a visitors center for the benefit of the Los Cerritos Wetlands Authority and to provide public access to the Los Cerritos Wetlands.** The Bixby Ranch Field Office building is a historically significant structure and has been determined to be eligible for listing in the California Register of Historic Places as well as the local register. It is currently used as the offices for the Synergy Oil Company. In its current location, the building is located within the Newport-Inglewood Fault zone and at an elevation that could expose it to inundation in the event of sea level rise impacting the site. The project proposes to relocate the building by moving it 427 feet southwest of its current location to an approximately 1.42-acre previously-disturbed area within the oil field site. The proposed relocation will remove the structure from the Newport-Inglewood Fault zone, and its placement on a raised pad will address the potential impacts of sea level rise. The project will also rehabilitate and adapt the building into a visitors center, and will provide landscape, hardscape, and parking lot improvements around the building to support public access use of the site and building. Once relocated and renovated, the building would be conveyed to the Los Cerritos Wetlands Authority and will be available for public use, including providing educational programs for the benefit of the community. The project will provide public access to a key portion of the Los Cerritos Wetlands which has up until now been fenced off from public use due to the oil field operations.
5. **Provide new on-site public access opportunities.** In addition to the new visitors center that would be provided by the project, the project will also provide a new perimeter trail that will extend from the relocated visitors center, along the perimeter of the Synergy Oil Field site adjacent to Studebaker Road, to Steamshovel Slough. Docent-led tours will provide educational opportunities for the public to learn more about and experience the restored wetlands habitat.
6. **The City will receive an increase in tax dollars from the new oil production activities.** Long Beach imposes a tax on oil production which is currently estimated at 40 cents/barrel of oil produced. As a result of this project, the incremental increase in annual tax proceeds from new oil production could, at maximum operating capacity, provide approximately \$4 million in tax revenues to the City.
7. **New employment opportunities will be provided.** The proposed project will provide short-term construction jobs and new long-term employment opportunities. It is estimated that during construction activities, up to 160 workers could be present on site. The project could generate approximately 30 new permanent employment positions for the oil operations, in addition to the 15 existing employees. Depending upon the number of workers needed during the drilling phase of the project, a total of 60 workers (inclusive of the 45 described above) workers may be required. The operation of the visitors center and operation and maintenance of the public access trails on the Synergy Oil Field site would also generate 5 additional employees, including 3 full-time employees and 2 volunteers.
8. **Removal of oil field infrastructure from the Synergy Oil Field site and the City Property site to reduce potential site hazards.** The project will result in the removal, abandonment and remediation of

oil facilities from both the Synergy Oil Field and City Property sites that are no longer in use and no longer needed to support the remaining oil operations. While these facilities, such as tanks, pipelines, and wells, remain on these two sites, they pose a potential safety threat due to the potential for leaks, ruptures, and failures. Because these facilities were constructed over 60 to 70 years ago, their placement and elevation did not take into consideration protection from sea level rise and periodic flooding which only serve to underscore the potential safety issues concerning these facilities that will be greatly improved pursuant to the project.⁹ **Off-site improvements will be provided.** Consistent with and to promote City policy, the project will construct various off-site improvements which are not directly required to support the project, but will provide overall benefits to the City and its residents, specifically in furtherance of public access. All impacts of the off-site improvements, including impacts to biological resources, can be mitigated to less than significant. The project applicant will construct perimeter sidewalk improvements and provide landscaping around the perimeter of the Project Sites as follows:

- **On the Synergy Oil Field Site:** Sidewalks along PCH and 2nd Street and Studebaker; a bike lane along 2nd Street, PCH and Studebaker
- **On the City Property Site:** Install sidewalks along 2nd Street; and install bike lanes along 2nd Street
- **On the Pumpkin Patch Site:** Repair sidewalks along PCH and install new sidewalk along Shopkeeper Road; install bike lanes along Shopkeeper Road and improve the bike lanes along PCH
- **On the LCWA Site:** Install sidewalks along 2nd Street and Studebaker; and improve the existing bike lane

10. New “cleaner” energy efficient design is a Project Design Feature.

The project has a design feature that provides an energy efficient design through incorporation of features such as use of onsite gas turbines that combine heat and power (i.e., cogeneration), microgrid controls, and installation of solar PV modules. The project’s use of a cogeneration, microgrid controls, and solar PV modules helps to substantially reduce the GHG emissions from the proposed project, and is consistent with state and federal environmental policies. California’s AB 32 Climate Change Scoping Plan includes a range of programs and incentives explicitly supporting GHG reductions from cogeneration. In parallel, the United States Environmental Protection Agency supports federal and state programs and incentives for cogeneration’s reduction of GHG and other pollutants via the USEPA Combined Heat and Power Partnership. Similar state and federal initiatives explicitly support expanded use of microgrids and solar PV for energy efficiency and reduction of GHG and other pollutants.

The microgrid’s energy source components will include an SCE grid connection, four 4.5 MW gas turbines with heat recovery steam generators for cogeneration and potential generation of 18 MW, and renewable solar photovoltaic with generation potential of 158 kW. The project design will provide production facilities in such a manner that the microgrid can capture energy produced by the oil production operations (i.e., natural gas for cogeneration) and redistribute that energy elsewhere in the system. The microgrid project design feature controls integration of multiple energy sources and uses to maximize efficiency, environmental benefits, cost savings, and reliability. GHG reductions are provided by the microgrid because it allows for the real-time integration of clean and renewable energy sources with energy efficiency controls on energy using equipment. The microgrid can match the cleanest energy sources with the cleanest, most efficient energy uses.

The project will also use cogeneration as another project design feature to minimize GHG emissions. The use of cogeneration represents the utilization of advanced technology to capture/use waste heat from turbines and minimize greenhouse gas emissions. The primary focus of the cogeneration process will be to heat oil and water, and cool gas as part of the oil production/separation process. The water

reclaimed from this process is injected back into the oil production formation, and the gas and oil is sold for use and further processing, respectively. As the oil/water mixture enters the separation chamber it is heated and chemicals may be applied to enhance separation. Gas coming off of this process is cooled to remove water and heavy hydrocarbons. Without cogeneration, natural gas would be combusted in a boiler to heat the oil/water mixture. With cogeneration, waste heat from the turbine exhaust is used to heat the oil/water mixture rather than being exhausted to the atmosphere. Again, without cogeneration, refrigeration units powered by electricity would be utilized. With cogeneration, the steam from the turbines powers the refrigeration units. As calculated in Section 3.6 of the EIR, and the GHG Mitigation White Paper, an additional 21% of GHG emissions would be generated without cogeneration. Therefore, the inclusion of the project design feature will result in greater environmental benefits.

- 11. Emission-reducing benefits of turbine selection.** The turbine that is proposed for use by the project reduces GHG emissions by approximately 15% as compared to other equipment options available on the market today. The Project will use turbines that produce low emissions and help reduce EIR-identified emission impacts below levels of significance.

3.4 Conclusion

In conclusion, the City Council has identified and analyzed all potentially significant impacts of the proposed Project and has concluded that only three short-term, construction-related impacts remain unavoidable and adverse after all mitigation measures have been examined. In addition, because these unavoidable impacts are all generated by construction emissions, these impacts would also result from implementation of any of the alternatives that contemplate development. The City Council has identified economic and social benefits and important public policy objectives that will result from implementation of the proposed project. These Project characteristics will provide benefits to not only the City and its residents, but members of the public from surrounding cities and the region. The City Council has sought to balance these substantial economic and social benefits against the significant, short-term, unavoidable adverse environmental effects of the proposed project. Given the substantial social and economic benefits that will accrue to the City and to the region from the implementation of the proposed Project, the City Council finds that the proposed project's identified benefits override the Project's identified significant environmental impacts.

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CHAPTER 11

Mitigation Monitoring and Reporting Program

11.1 Introduction to the MMRP

Pursuant to Public Resources Code (PRC) Section 21081.6 and *CEQA Guidelines* Section 15097, a lead agency is required to adopt a mitigation monitoring and reporting program (MMRP) for assessing and ensuring compliance with the required mitigation measures applied to a proposed project for which an EIR has been prepared. As stated in PRC Section 21081.6(a):

... the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment.

Section 21081.6 provides general guidelines for implementing mitigation monitoring programs and indicates that specific reporting and/or monitoring requirements, to be enforced during project implementation, shall be defined prior to final certification of the EIR. The lead agency may delegate reporting or monitoring responsibilities to another public agency or a private entity that accepts such delegation. The lead agency, however, remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

11.2 MMRP Matrix

Table 11-1, Mitigation Monitoring and Reporting Program, lists mitigation measures and project design features that are required to reduce the significant effects of the proposed project. These measures correspond to those outlined in Chapter 9, *Introduction to the Final EIR*, and discussed in Draft EIR Sections 3.1 through 3.18, and those revised in this Final EIR (see Chapter 10, *Draft EIR Revisions*). To ensure that the mitigation measures are properly implemented, a monitoring program has been devised that identifies the timing and responsible entity for monitoring each measure. The Applicant will have the responsibility for implementing the measures, and various public agencies will have the primary responsibility for enforcing, monitoring, and reporting the implementation of the mitigation measures.

EXHIBIT "B"

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
3.1 Aesthetics			
<p>Mitigation Measure AES-1: Construction contractors shall be required to strictly control the staging and cleanliness of construction equipment stored on the project site. Staging areas shall be screened from view at street level with solid wood fencing or green fence. Prior to the issuance of a building permit, the Applicant shall submit a Construction Staging, Access, and Parking Plan to the City of Long Beach Planning and Development Services Department for review and approval. Construction workers would be required to park on the Synergy Oil Field site and would be bussed to their respective construction site. Construction worker vehicles and work vehicles shall be kept clean and free of mud and dust before leaving the project site. Project contractors shall be required to sweep surrounding streets used for construction access on a daily basis to keep them free of construction-related dirt and debris.</p>	<p>Included in construction contractor's scope of work and agreements; written verification; visual inspection.</p>	<p>By the Applicant prior to issuance of Building Permit and by construction contractors continuously during project construction.</p>	<p>City of Long Beach</p>
<p>Mitigation Measure AES-2: Lighting Plan. Prior to issuance of a grading permit for each site, a Lighting Plan for the site shall be developed and submitted to the City of Long Beach Planning and Development Services Department, that requires all exterior lighting to be directed downward and focused away from adjacent sensitive uses and habitats to encourage wayfinding and provide security and safety for individuals walking to and from parking areas and working at the oil facilities on the Pumpkin Patch site and the LCWA site. Compliance with the approved Lighting Plan shall be implemented through the City's development review and building place check process.</p>	<p>Written verification; visual inspection.</p>	<p>By the Applicant prior to issuance of Grading Permit and by construction contractors continuously during the life of the project.</p>	<p>City of Long Beach</p>
3.2 Air Quality			
<p>Mitigation Measure AQ-1: Construction-Period Use of Low-VOC Paints. The Applicant for the proposed project shall be responsible for the use of SCAQMD Rule 1113-compliant paints with a VOC content of 50 grams per liter or less.</p>	<p>Included in Applicant's scope of work and development agreement.</p>	<p>Continuously by the Applicant during project construction.</p>	<p>City of Long Beach</p>
<p>Mitigation Measure AQ-2: Construction NO_x Reduction Measures. The Applicant for the proposed project shall be responsible for the implementation of the following construction-related NO_x reduction measures:</p> <ul style="list-style-type: none"> Require all off-road diesel-powered construction equipment greater than 50 hp (e.g., excavators, graders, dozers, scrapers, tractors, loaders, etc.) to comply with EPA-Certified Tier IV emission controls where commercially available. Documentation of all off-road diesel equipment used for this project including Tier IV certification, or lack of commercial availability if applicable, shall be maintained and made available by the contractor to the City for inspection upon request. In addition, all construction equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by 	<p>Included in Applicant's scope of work and development agreements; Written verification.</p>	<p>Continuously by the Applicant during project construction.</p>	<p>City of Long Beach</p>

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>CARB such as certified Level 3 Diesel Particulate Filter or equivalent. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. If Tier IV construction equipment is not available, the City shall require the contractor to implement other feasible alternative measures, such as reducing the number and/or hp rating of construction equipment, and/or limiting the number of individual construction phases occurring simultaneously. The determination of commercial availability of Tier IV construction equipment shall be made by the City prior to issuance of grading or building permits based on applicant-provided evidence of the availability or unavailability of Tier IV equipment and/or evidence obtained by the City from expert sources such as construction contractors in the region.</p> <ul style="list-style-type: none"> • Eliminate the use of all portable generators. Require the use of electricity from power poles rather than temporary diesel or gasoline power generators. • Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow, including during the transportation of oversized equipment and vehicles. • Provide dedicated turn lanes for movement of construction trucks and equipment on and off site. The location of these dedicated lanes shall be addressed in the Construction Trip Management Plan. • Reroute construction trucks away from congested streets or sensitive receptor areas. • Prohibit the idling of on-road trucks and off-road equipment in excess of 5 continuous minutes, except for trucks and equipment where idling is a necessary function of the activity, such as concrete pour trucks. The Applicant or construction contractor(s) shall post signs at the entry/exit gate(s), storage/lay down areas, and at highly visible areas throughout the active portions of the construction site of the idling limit. • On-road heavy-duty diesel haul trucks with a gross vehicle weight rating of 19,500 pounds or greater used to transport construction materials and soil to and from the project site shall be engine model year 2010 or later or shall comply with the USEPA 2007 on-road emissions standards. 	<p>Included in Applicant's scope of work and development agreement; Written verification.</p>	<p>Continuously by the Applicant during project construction.</p>	<p>City of Long Beach</p>
<p>Mitigation Measure AQ-3: Operational NO_x Reduction Measures. Require all diesel-powered drilling rigs located at the Pumpkin Patch and LCWA sites to comply with EPA-certified Tier IV emission controls. This drilling rig equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB.</p>	<p>Included in Applicant's scope of work and development agreement; Written verification.</p>	<p>Continuously by the Applicant during project construction.</p>	<p>City of Long Beach</p>

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
3.3 Biological Resources			
<p>Mitigation Measure BIO-1: Avoidance of Special-Status Plants. Prior to vegetation or ground disturbance, a qualified botanist/biologist shall flag special-status plants located within 25 feet of proposed disturbance areas on the project site including southern tarplant, estuary seablite, and woolly seablite. Individual plants shall be marked or flagged for avoidance and a minimum no-disturbance buffer of 10 feet shall be established. The appropriate buffer distance shall be determined by the qualified botanist/biologist. If southern tarplant plants cannot be avoided, Mitigation Measure BIO-2 shall be implemented.</p>	<p>Field verification with written verification submitted to the City of Long Beach Planning and Development Services Department.</p>	<p>By the Applicant prior to project construction.</p>	<p>City of Long Beach or a qualified representative of the City</p>
<p>Mitigation Measure BIO-2: Re-establish Southern Tarplant on Synergy Oil Field, City Property, and Pumpkin Patch Sites. Prior to any disturbance to special-status plants, a Southern Tarplant Restoration Plan shall be prepared and approved by CDFW. At a minimum, the Restoration Plan shall include the following:</p> <ul style="list-style-type: none"> • A map showing the areas to be restored following temporary impacts • Weed management procedures to prevent introduction of invasive plant species on site prior to and during construction, and during maintenance • Seed collection protocol • Seed dispersal protocol • Performance standards for the areas to be re-established • Maintenance and monitoring procedures for the areas to be re-established • Adaptive management strategies • Reporting requirements 	<p>Field verification with written verification submitted to the City of Long Beach Planning and Development Services Department.</p>	<p>By the Applicant prior to project construction.</p>	<p>City of Long Beach or a qualified representative of the City</p>

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>Mitigation Measure BIO-3: Biological Monitoring. All proposed project implementation shall occur under the supervision and direction of a qualified biologist. The biologist shall ensure maximum avoidance and minimization of impacts to wildlife and wetland vegetation during implementation of project activities on the Synergy Oil Field site, Pumpkin Patch site, and City site.</p> <p>Prior to the daily start of cleanup activities and at the end of the work day, wildlife monitoring by a qualified biologist shall include inspection of any hazardous features (e.g., open trenches) that would trap, displace, injure, or kill wildlife. Prior to the end of daily cleanup activities, the biologist shall ensure all trash is properly disposed of such that it would not be accessible to wildlife.</p> <p>For areas that contain suitable habitat for special-status wildlife, prior to and during all vegetation and ground-disturbing activities, a qualified biologist shall monitor work areas. If any special-status wildlife species are encountered during biological monitoring or by construction workers, work shall halt until the biologist determines appropriate actions to avoid and minimize harm to the species. California Fully-Protected species shall be avoided. Other actions may include relocation of the species for non-listed wildlife; however, relocation shall not be allowed for any listed species without first obtaining take authorization from USFWS and/or CDFW. To the extent feasible, non-listed wildlife shall be relocated to a CDFW/USFWS-approved relocation site that contains suitable habitat adjacent to the habitat where the species is found.</p>	<p>Field verification with written verification logs submitted weekly to the City of Long Beach Planning and Development Services Department.</p>	<p>Continuously by the Applicant during project construction.</p>	<p>City of Long Beach or a qualified representative of the City</p>
<p>Mitigation Measure BIO-4: Belding's Savannah Sparrow Breeding Habitat. Suitable breeding habitat shall be created on the Synergy Oil Field site at a minimum acreage of 1:1 (created: impacted). Suitable breeding habitat shall consist of areas dominated by pickleweed and Parish's glasswort with a minimum 60 percent cover with a hydrologic regime similar to that currently present in the northern area, with suitable slope, inundation and soil salinity. The re-establishment requirements for Belding's savannah sparrow suitable breeding habitat (dominated by pickleweed and Parish's glasswort) shall be addressed in the Restoration Plan for the Synergy Oil Field site as outlined in Mitigation Measure BIO-5.</p>	<p>Field verification with written verification submitted to the City of Long Beach Planning and Development Services Department.</p>	<p>By the Applicant during project restoration activities</p>	<p>City of Long Beach or a qualified representative of the City</p>
<p>Mitigation Measure BIO-5: Re-establish Sensitive Natural Community Vegetation Alliances Subject to Permanent and Temporary Impacts. Sensitive natural communities located on the project site include California cordgrass marsh, Parish's glasswort patches, alkali heath marsh, pickleweed mats, Emory's baccharis thickets, black willow thicket, southern coastal brackish marsh, southern coastal salt marsh, and alkali meadow.</p> <p>Prior to any vegetation or ground disturbance associated with the Synergy Oil Field or City Property site, comprehensive restoration plans</p>	<p>Field verification with written verification submitted to the City of Long Beach Planning and Development Services Department.</p>	<p>By the Applicant during project restoration activities</p>	<p>City of Long Beach or a qualified representative of the City</p>

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>shall be prepared and implemented within 1 year of impacts to sensitive natural communities. The Restoration Plan for the Synergy Oil Field site will be subject to review and approval of the Interagency Review Team (IRT) led by the Corps, and evidence of the IRT's approval shall be submitted to the City prior to initiation of grading activity on the Synergy Oil Field site. The Revegetation Plan for the City Property site shall be reviewed and approved by the CCC. The plans shall include, at a minimum, the following:</p>			
<ul style="list-style-type: none"> • A map showing the areas to be restored following permanent and temporary impacts. • Identify specific restoration actions (e.g., revegetation requirements, removal of non-native plants) to be implemented during restoration. • Quantity and quality of vegetation communities to be restored on site. Permanent impacts shall be restored at a minimum of 2:1 and temporary impacts restored at 1:1. The amount and extent of restoration shall be identified and determined based on habitat quality prior to implementation of the Restoration Plan and the initiation of any vegetation or ground disturbance. • Plant palette for each Sensitive Natural Communities subject to re-establishment. • Specific measurable performance standards for the areas to be re-established to evaluate habitat development, species composition and ecosystem functions. • A timeline for implementation (within 1 year of impacts to sensitive natural communities). • Provide specific protocols for monitoring, including sample design (e.g., number of replicates, locations for sample points, transects, etc.), sampling methods to be implemented, and statistical methods for analyzing the data. • Maintenance procedures for areas to be re-established. • Identify contingency plans (i.e., adaptive management procedures) to be implemented if specific performance goals are not met within the timeframe anticipated. • Performance goals for the restoration that shall focus on habitat development, species composition, and ecosystem functions. • Reporting requirements. 			

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>Mitigation Measure BIO-6: Nesting Bird and Raptor Avoidance. A qualified biologist shall identify areas where nesting habitat for birds and raptors is present. To ensure the avoidance of impacts to native nesting avian species, the following measures shall be implemented pursuant to the MBTA and California Fish and Game Code:</p> <ul style="list-style-type: none"> • Construction and maintenance activities during operations within and adjacent to known and potential avian nesting habitat shall be limited to the non-breeding season (September 1 through December 31) to the extent feasible. If construction or maintenance activities will occur during the avian nesting season (generally March 1 through August 31 for passerines and January 1 through August 31 for raptors), a qualified biologist shall conduct pre-construction nesting avian surveys within 5 days of the initiation of construction to determine the presence or absence of active nests. If a lapse in work of 5 days or longer occurs, another survey shall be conducted prior to work being reinitiated. Surveys shall include any potential habitat, including trees, shrubs, and on the ground, or on nearby structures that might be impacted by construction or maintenance activities that may cause nest destruction or abandonment, such as vegetation or weed removal, earth work, and vector control actions. • If active nests are observed, an avoidance buffer shall be demarcated with exclusion fencing and shall be maintained until the qualified biologist determines that the young have fledged. Fence stakes designed with bolt holes shall be plugged with bolts or other materials to avoid entrapping birds. The initial avoidance buffer(s) shall extend a minimum of 500 feet in all directions for raptors and listed passerines such as Belding's savannah sparrow and Ridgway's rail, and 300 feet in all directions for all other native passerines. A reduced buffer may be implemented at the discretion of the biologist for non-listed passerines based on such factors as species-tolerance to human presence, location of the nest, and the timing of nest construction, such as whether the nest was constructed after construction is initiated; however, for raptors and listed passerines, the biologist shall obtain approval from USFWS and/or CDFW prior to allowing work to commence within the 500-foot buffer. 	<p>Field verification with written verification submitted to the City of Long Beach Planning and Development Services Department.</p>	<p>Continuously by the Applicant during project construction and operations.</p>	<p>City of Long Beach or a qualified representative of the City</p>

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>Mitigation Measure BIO-7: Habitat Assessment and Pre-Construction Surveys for Burrowing Owl. A qualified biologist shall conduct a pre-construction burrowing owl survey of the project site prior to construction activities. If burrowing owls are detected, a Burrowing Owl Management Plan shall be prepared and approved by CDFW prior to commencement of construction. The Burrowing Owl Management Plan shall be prepared in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and shall address specific minimization and avoidance measures for burrowing owls, and measures to protect occupied habitat, such as avoidance and revegetation.</p>	<p>Field verification with written verification submitted to the City of Long Beach Planning and Development Services Department.</p>	<p>By the Applicant prior to project construction.</p>	<p>City of Long Beach or a qualified representative of the City</p>
<p>Mitigation Measure BIO-8: Avoidance of White-Tailed Kite Nesting. Remove all trees on the site outside the white-tailed kite nesting season (February 1 through June 30). If it is not possible to remove trees during the non-breeding season, a qualified biologist shall conduct a survey no more than 5 days prior to tree removal to document the absence of nests. If active nests are detected, they shall be avoided and a 500-foot no-disturbance buffer established (or reduced as specified in BIO-6). The qualified biologist shall monitor the site weekly until the nestlings have fledged and are no longer dependent on the nest.</p>	<p>Field verification with written verification submitted to the City of Long Beach Planning and Development Services Department.</p>	<p>Continuously by the Applicant during project construction.</p>	<p>City of Long Beach or a qualified representative of the City</p>
<p>Mitigation Measure BIO-9: Minimization of Light Spillage. A Project Lighting Plan shall be designed to minimize light trespass and glare into the avoided wetland habitat in the northeast portion of the site. Artificial lights shall be directed away from or shielded to prevent spillage into the avoided wetland habitat.</p>	<p>Written verification; visual inspection.</p>	<p>By the Applicant prior to issuance of Grading Permit and by construction contractors continuously during the life of the project.</p>	<p>City of Long Beach</p>
<p>Mitigation Measure BIO-10: Avoid or Minimize Impacts to Aquatic Habitat. Temporary disturbance to, and permanent loss of, all aquatic habitat shall be avoided to the maximum extent feasible. All temporary staging areas and access roads, if necessary, shall be located away from aquatic habitats to the extent practicable, and aquatic habitats abutting impacted areas shall be clearly demarcated with fencing, rope, or signage to avoid inadvertent disturbance during restoration activities and operations. As detailed grading plans are prepared, they shall be designed to avoid temporary and permanent impacts to aquatic habitats to the extent practicable.</p>	<p>Field verification with written verification submitted to the City of Long Beach Planning and Development Services Department.</p>	<p>Continuously by the Applicant during project construction.</p>	<p>City of Long Beach or a qualified representative of the City</p>

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>Mitigation Measure BIO-11: Post-Restoration Functional Lift Assessments of Wetland Waters of the U.S./State and Coastal Wetlands. Upon completion of restoration activities, the project shall demonstrate a no net loss of aquatic resource functions and demonstrate a substantial increase in wetland functions and values throughout the entire site. An assessment of habitat functions, such as biotic structure and hydrology, shall be conducted as part of the project's monitoring and reporting program outlined in the Final Restoration Plan for the Upper Los Cerritos Wetlands Mitigation Bank, so that these agencies can verify that the functional values have been achieved and/or provide measures that need to be implemented to meet the appropriate level of functionality.</p>	<p>Field verification with written report submitted to the City of Long Beach Planning and Development Services Department.</p>	<p>By the Applicant after project construction.</p>	<p>City of Long Beach or a qualified representative of the City,</p>
3.4 Cultural Resources			
<p>Mitigation Measure CUL-1: Recordation. Prior to the issuance by the City of Long Beach of a grading or building permit for the relocation of the Bixby Ranch Field Office and a grading permit for the wetlands restoration work on the Synergy Oil Field, a recordation document in accordance with the Historic American Landscape Survey (HALS) and the Historic American Buildings Survey (HABS) Level II requirements shall be completed for the Bixby No. 2 Discovery Well and the Bixby Ranch Field Office, both of which are individually eligible. The HABS/HALS document shall be prepared by a qualified architectural historian or historic preservation professional. These documents shall include a historical narrative on the industrial and historical importance of the Synergy Oil Field and Seal Beach Oil Field for background information, in addition to recording the existing appearance of the Bixby Ranch Field Office and the Bixby No. 2 Discovery Well in professional large format HABS/HALS photographs. For HALS, the Bixby No. 2 Discovery Well, the property setting and contextual views shall be documented. For HABS, the exteriors of the Bixby Ranch Field Office, representative interior spaces, character-defining features, as well as the setting and contextual views shall be documented. All documentation shall be completed in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation (HABS/HALS standards). Original archival sound copies of the report shall be submitted to the HABS/HALS collection at the Library of Congress and the archives of the South Central Coastal Information Center, California State University, Fullerton, CA. Non-archival digital copies shall be distributed to the City of Long Beach, City of Long Beach Public Library, and the Long Beach Historical Society. In addition, any existing and available design and/or as-built drawings and pertinent supporting materials such as maps and aerial photographs shall be compiled, reproduced, and incorporated into the recordation document.</p>	<p>Visual inspection and written verification.</p>	<p>By the Applicant prior to issuance of Building or Grading Permits</p>	<p>City of Long Beach</p>

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>Mitigation Measure CUL-2: Retention of the Bixby No. 2 Discovery Well. Prior to the issuance of a grading permit for the Synergy Oil Field site by the City of Long Beach, a plan shall be implemented by the Applicant for the retention and preservation of the Bixby No. 2 Discovery Well and sign along with a 5-foot buffer around the furthest point from the concrete pad. The plan shall define the necessary maintenance to the sign that shall be performed (see National Park Service Preservation Brief 25, "The Preservation of Historic Signs," by Michael J. Auer). The plan shall describe a path for pedestrian traffic from the visitors center to the Discovery Well that shall be developed and installed. At the Discovery Well site, a wayside sign shall be installed interpreting the Seal Beach Oil Field and the importance of the Bixby No. 2 Discovery Well. The interpretation of the Bixby No. 2 Discovery Well shall be overseen and prepared by a qualified architectural historian or historic preservation professional. The ongoing maintenance of the Bixby No. 2 Discovery Well site shall be the responsibility of the owner of this area of the Synergy Oil Field site.</p>	<p>Visual inspection and written verification.</p>	<p>Continuously by the Applicant during project operations.</p>	<p>City of Long Beach</p>
<p>Mitigation Measure CUL-3: Historic Preservation Consultation, Preparation of a Relocation and Rehabilitation Plan, and Construction Monitoring. Prior to the issuance of a grading permit for the Synergy Oil Field site by the City of Long Beach, a Relocation and Rehabilitation Plan and plans for Construction Monitoring shall be submitted by the Applicant for review and approval. The project design for Bixby Ranch Field Office is presently conceptual and detailed architectural drawings showing the proposed rehabilitation have not been prepared. A qualified architectural historian shall provide input to the project architect to revise the design in accordance with the Standards to retain the character-defining features of the exterior and interior of the Bixby Ranch Field Office. Once the design has been finalized, the architectural historian shall prepare a Standards plan review for submittal to the City of Long Beach Planning for a Certificate of Appropriateness.</p> <p>Following the approval of the Bixby Ranch Field Office project plans, a Relocation and Rehabilitation Plan (Plan) shall be developed by a qualified historic preservation consultant. The Plan shall include relocation and rehabilitation methodology recommended by the National Park Service (NPS), which are outlined in the booklet entitled "Moving Historic Buildings," by John Obed Curtis (1979). The Plan shall include an assessment of the building condition by a qualified engineer, and a shoring plan for relocation and storage, and guidelines for relocation to the final site. If temporary storage is required, the storage conditions should closely follow the recommendations of NPS Preservation Brief 31: Mothballing Historic Buildings with regard to recommendations for structural stabilization, pest control, protection against vandalism, fire, and moisture, adequate ventilation which should be applied to the building at the temporary storage location to ensure the safety of the</p>	<p>Written plan/report.</p>	<p>By the Applicant prior to the issuance of a grading permit.</p>	<p>City of Long Beach</p>

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>building during storage. A periodic maintenance and monitoring plan shall also be included in the Plan and implemented during the storage period in accordance with the guidance outlined in NPS Preservation Brief 31. The Plan shall be reviewed and approved by the City prior to issuance by the City of permits to relocate the Bixby Ranch Field Office.</p> <p>Upon relocation of the Bixby Ranch Field Office, any maintenance, repair, stabilization, rehabilitation, preservation, conservation, or reconstruction work performed in conjunction with the relocation of the building shall be undertaken in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Properties. The relocation and rehabilitation process shall be monitored by a qualified historic preservation consultant at key intervals to ensure conformance with the Standards and NPS guidelines. The preservation consultant shall also be available to provide technical expertise to reduce potential impacts to historical resources from unforeseen circumstances.</p> <p>Lastly, a permanent metal plaque shall be affixed to the primary elevation or a marker shall be imbedded in the pavement in front of the primary elevation of the relocated Bixby Ranch Field Office, which will briefly explain where the building was originally located (original and second location) and that the building was relocated to a third location. A qualified architectural historian or historic preservation professional shall provide oversight to the design and fabrication of an interpretive plaque/marker.</p>			
<p>Mitigation Measure CUL-4: Interpretation. Interpretation about the significant history of the Synergy Oil Field shall be placed within the Bixby Ranch Field Office (the proposed visitors center), and along the proposed walking trails. The interpretation shall use the recommendations from Mitigation Measures CUL-2 (Retention) and CUL-3 (Recordation) to interpret the history of the Los Angeles Basin Oil Industry, Long Beach Oil Industry, Seal Beach Oil Field (including the Bixby and McGrath leases), Rancho Los Alamitos Company, Synergy Oil Field, Marland Oil Company, and Continental Oil Company. Furthermore, oral histories shall be conducted of previous employees who worked on the Synergy Oil Field or Seal Beach Oil Field, or experts with knowledge of the abovementioned themes to incorporate within the interpretive exhibit. Historical photographs, aerials, topographic maps, and newspapers shall compliment the interpretive exhibit to visually demonstrate the activities that took place on the Synergy Oil Field. A qualified architectural historian or historic preservation professional shall provide oversight to the design and installation of an interpretive program.</p>	<p>Written report, written verification and visual inspection.</p>	<p>Prior to the issuance of an occupancy permit</p>	<p>City of Long Beach</p>

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>Mitigation Measure CUL-5: Retention of Qualified Archaeologist and Worker Training. Prior to the issuance of a grading permit for each of the four individual sites and any off-site improvements by the City of Long Beach, evidence shall be provided to the City that a qualified archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Secretary of the Interior 2008) has been retained by the City to conduct any required training, evaluation, or treatment of archaeological resources that might be encountered during implementation of the project. As part of this, prior to the start of grading, the qualified archaeologist shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel must be informed of the types of archaeological resources that may be encountered (both prehistoric and historical), and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. The Applicant must ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance. This documentation shall be made available to the City upon request.</p>	Written verification.	By the Applicant prior to issuance of Grading Permit and project construction.	City of Long Beach
<p>Mitigation Measure CUL-6: Native American Monitoring. A Native American monitor from the Gabrieleño Band of Mission Indians—Kizh Nation, a consulting party for the project under AB 52, shall be present during all earth-moving construction activities. The Native American monitor shall be given the opportunity to participate in the cultural resources sensitivity training described in Mitigation Measure CUL-5. At least 30 days prior to issuance of grading permits by the City of Long Beach for each of the four individual sites and any off-site improvements, a Native American Monitoring Agreement (Monitoring Agreement) shall be developed between the City and the Gabrieleño Band of Mission Indians—Kizh Nation. The Monitoring Agreement shall pertain to prehistoric archaeological resources and Tribal cultural resources, respectively, and shall identify any monitoring requirements and treatment of cultural resources to meet both the requirements of CEQA and those of the Tribal representative. The Monitoring Agreement shall also address communication protocols in the event of an unanticipated discovery of cultural materials, and the roles, responsibilities, and authorities of the Native American Monitor. The Monitoring Agreement shall also detail the protocols for treatment and final disposition of any Native American cultural resources, sacred sites, and human remains discovered on the site that the Native American Monitor shall implement in consultation and coordination with the Native American Most Likely Descendant, as identified by the NAHC. In accordance with Mitigation Measure CUL-9, discussed below, discovery and treatment of human remains shall comply with State Health and Safety Code Section 7050.5 and PRC Section 5097.98.</p>	Monitoring Agreement	By the Applicant prior to issuance of Grading Permit and continuously during project construction.	City of Long Beach, Gabrieleño Band of Mission Indians—Kizh Nation

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>Mitigation Measure CUL-7: Archaeological Resource and/or Tribal Cultural Resource Discovery and Treatment. In the event of the unanticipated discovery of archaeological or other cultural resources, whether discovered through Native American monitoring or not, all work activities in the area (within approximately 100 feet of the discovery) shall be halted or redirected until the discovery can be evaluated by a qualified archaeologist. Construction shall not resume until a qualified archaeologist has conferred with the City and, in the case of prehistoric archaeological resources and tribal cultural resources, the Native American monitor, on the significance of the resource. If it is determined that the discovered archaeological resource and/or tribal cultural resource is significant under CEQA, avoidance and preservation in place shall be the preferred manner of mitigation, pursuant to PRC Section 21083.2(b) and Section 21084.3. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. In the event that preservation in place is demonstrated to be infeasible and data recovery through excavation is the only feasible mitigation available, a Treatment Plan shall be prepared and implemented by a qualified archaeologist, in consultation with the City, that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource or cultural information in the event of a tribal cultural resource. The City shall also consult with appropriate Native American representatives in determining treatment for prehistoric or Native American resources to ensure cultural values ascribed to the resources, beyond those that are scientifically important, are considered. Any evaluation and treatment shall be supervised by an individual or individuals that meet the Secretary of the Interior's Professional Qualification Standards.</p>	Written report	Continuously by the Applicant during project construction.	City of Long Beach, Gabrieleño Band of Mission Indians—Kizh Nation and any appropriate Native American representatives

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>Mitigation Measure CUL-8: Paleontological Monitoring. Prior to commencement of any grading or excavation activity on site, the Applicant shall retain a qualified paleontologist, defined as a paleontologist meeting the guidelines of the Society of Vertebrate Paleontology (SVP) (2010) and approved by the City of Long Beach. The qualified paleontologist, or a designated paleontological monitor working under the guidance of the qualified paleontologist, shall attend and participate in any preconstruction meetings and worker training (as discussed in Mitigation Measure CUL-5), and shall be on site during all excavation and other significant ground-disturbing activities that reach a depth of 15 feet or greater below the modern ground surface. This is the minimum depth at which Young Alluvial Fan and Valley Deposits, Undivided may be encountered. These deposits are considered to have low paleontological sensitivity near the top of the geologic unit (which may not necessarily correspond with the modern ground surface), and a high paleontological sensitivity greater than 15 feet below the top of the unit. In the event that paleontological resources (e.g., fossils) are unearthed during ground-disturbing activity, the paleontological monitor shall have the authority to temporarily halt or divert grading activity to allow recovery of paleontological resources. The area of discovery shall be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor shall allow grading to recommence in the area of the find. Daily field logs shall be prepared during the course of the monitoring, and upon completion of monitoring a final report shall be prepared for submittal to the City of Long Beach.</p>	Written verification.	Prior to issuance of grading activities and Continuously by the Applicant during project construction	City of Long Beach
<p>Mitigation Measure CUL-9: Treatment of Human Remains. In accordance with California Health and Safety Code Section 7050.5, if human remains are found, the Los Angeles County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains (100 feet or as determined by the project archaeologist) shall occur until the procedures set forth in this measure have been implemented. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission (NAHC) within 24 hours. In accordance with California PRC Section 5097.98, the NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.</p>	Written verification.	Continuously by the Applicant during project construction.	City of Long Beach

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
3.5 Geology and Soils			
<p>Mitigation Measure GEO-1: Implement Geotechnical Recommendations. As recommended in the geotechnical studies prepared for project implementation on each project site, at such time the details for the following site specific improvements and their locations are finalized, a design-level geotechnical investigation shall be prepared to develop final site- and development-specific recommendations based upon the potential geologic conditions that are described and evaluated in the geotechnical studies and this EIR. Design-level geotechnical investigation shall be prepared for the following project components and shall be submitted to the City of Long Beach, Building Department and Planning Department:</p> <ul style="list-style-type: none"> • Visitors center on the Synergy Oil Field site; • Office building and warehouse on the Pumpkin Patch site; • All well cellars on the Pumpkin Patch and LCWA sites; and • All tank battery and containment areas on the Pumpkin Patch and LCWA sites. <p>The design-level geotechnical investigations shall provide recommendations as necessary to address the geotechnical issues that were identified for each site in the EIR. In addition to compliance with the CBC, design-level measures shall be provided for the following specific geotechnical issues:</p> <ul style="list-style-type: none"> • Risks from seismic shaking of structures such as the building to be constructed on the Pumpkin Patch site shall be reduced by designing the structures to withstand the anticipated maximum level of seismic shaking, and incorporating bracing and anchoring techniques to withstand a Maximum Credible Earthquake of 7.0 magnitude. • For those project sites that have been identified as susceptible to liquefaction, the design-level geotechnical investigations shall identify the specific measures recommended to address liquefaction potential, which could include driving piles through susceptible materials; conditioning the soils by deep soil mixing, jet or pressure grouting, or dynamic compaction techniques; or by removing the susceptible soils. • If the landfill on the Pumpkin Patch site is not removed, any structures proposed to be placed on top of the landfill shall be stabilized one of two measures: by driving piles through unstable materials into underlying stable units or by removing the susceptible soils and replacing the materials with properly compacted imported fill. • For those sites on which structures may be placed in areas of expansive soils, the design-level geotechnical study shall identify 	Written verification.	Prior to the issuance of building permits	City of Long Beach

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>whether the expansive soils should be removed and replaced with imported non-expansive fill, or with proper mixing and grading of site materials.</p> <ul style="list-style-type: none"> The Applicant shall provide the design-level geotechnical investigations along with the plans, specifications, grading plans, and building plans to the City for review as a condition of approval to acquire the necessary grading and building permits. Implementation by the Applicant of the recommendations in the design-level geotechnical investigations will mitigate geotechnical hazards to a level of less than significant. 			
3.6 Greenhouse Gas Emissions			
<p>Mitigation Measure GHG-1: Cap-and-Trade Program. The project shall comply with the Cap-and-Trade Program as administered by CARB for covered sources. In accordance with the Cap-and-Trade Program, the project shall retire GHG allowances or offsets equal to the project's GHG emissions for covered sources. Retiring the GHG allowances or offsets means the project would acquire them through a number of means carefully controlled by CARB, including obtaining allowances and offsets in CARB-controlled auctions with variable and increasing cost, according to projections and decreasing supply. The project shall also comply with all applicable and required reporting requirements and GHG reduction and trading requirements. The project shall also comply with all applicable Cap-and-Trade regulations as they continue to evolve, such as revisions to the Climate Change Scoping Plan, and become adopted by the California Legislature and/or through CARB's rulemaking process.</p>	Written verification	Prior to the issuance of a grading permit	City of Long Beach

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
3.7 Hazardous and Hazardous Materials			
<p>Mitigation Measure HAZ-1: Health and Safety Plan. The construction contractor(s) shall prepare and implement site-specific Health and Safety Plans as required by and in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. This Plan shall be submitted to the project applicant and the Long Beach Hazardous Materials Division for review prior to commencement of construction. The Health and Safety Plan shall include, but is not limited to, the following elements:</p> <ul style="list-style-type: none"> • Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site Health and Safety Plan; • A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals; • Specified personal protective equipment and decontamination procedures, if needed; • Emergency procedures, including route to the nearest hospital; and • Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered. These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release, notifying The Long Beach Hazardous Materials Division, the LARWQCB, and DOGGR, as appropriate, and retaining a qualified environmental firm to perform sampling and remediation. 	Written verification	Prior to the issuance of a grading permit	City of Long Beach

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
<p>Mitigation Measure HAZ-2: Soil, Landfill Materials, and Groundwater Management Plan. In support of the Health and Safety Plan described in Mitigation Measure HAZ-1, the contractor shall develop and implement a Soil, Landfilled Materials, and Groundwater Management Plan that includes a materials disposal plan specifying how the construction contractor will remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The Plan must identify protocols for soil and landfilled materials testing and disposal, identify the approved disposal site, and include written documentation that the disposal site can accept the waste. Contract specifications shall mandate full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in excavated soil or dewatering effluent.</p> <p>As part of the Soil and Groundwater Management Plan, the contractor shall develop a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent), if encountered, will be handled and disposed of in a safe, appropriate and lawful manner. The Plan must identify the locations at which groundwater dewatering is likely to be required, the test methods to analyze groundwater for hazardous materials, the appropriate treatment and/or disposal methods, and approved disposal site(s), including written documentation that the disposal site can accept the waste. The contractor may also discharge the effluent under an approved permit to a publicly owned treatment works, in accordance with any requirements the treatment works may have.</p> <p>This Plan shall be submitted to the project applicant and Long Beach Hazardous Materials Division for review and approval prior to commencement of construction.</p>	<p>Written verification, submittal of report.</p>	<p>Prior to the issuance of a grading permit, by the contractor(s) prior to project construction.</p>	<p>City of Long Beach</p>

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
3.11 Noise			
Mitigation Measure NOI-1: Prior to issuance of the permits for the drilling and drilling equipment at the Pumpkin Patch and LCWA sites, a detailed noise assessment shall be prepared to demonstrate that the resultant noise levels from oil production activities will meet the City of Long Beach Noise Ordinance limits. The operational noise assessment shall be prepared by a qualified acoustical consultant who is a Registered Engineer in the State of California. The report shall document the specific sources of noise and detail any measures, if any are required, to ensure that operational noise is maintained within the City's standards. These measures will be incorporated into the project plans. The report shall be completed and approved by the City prior to issuance of building permits. Additionally, once the sites are in operation, noise measurements should be conducted within 60 days that demonstrate both oil production sites are in compliance with the City's Noise Ordinance. If any exceedances are detected, the City shall require that noise attenuation measures, such as equipment enclosures, mufflers, etc. are implemented, and require additional noise measurements be taken to demonstrate compliance with the City's Noise Ordinance.	Written verification through submittal of a report.	By the Applicant prior to issuance of drilling and building permits and noise measurements should be conducted within 60 days within sites being operational that demonstrate both oil production sites are in compliance with the City's Noise Ordinance continuously during project construction.	City of Long Beach
Mitigation Measure NOI-2: Staging Areas and Mufflers. Staging areas for construction shall be located away from existing off-site residences. All construction equipment shall use properly operating mufflers. These requirements shall be included in construction contracts.	Included in contractor's scope of work and agreements; Written verification shall be made available to the City upon request.	Continuously by the Applicant during project construction.	City of Long Beach
Mitigation Measure NOI-3: Limit Grading and Pile Driving. All grading and sheet pile driving activities shall be conducted outside of the nesting season for sensitive bird species. The nesting season has been identified as extending from March 1 to August 15. (Refer to the Biological section of the EIR for more information on potential impacts to bird species and the corresponding mitigation.)	Written verification and field inspection.	Continuously by the Applicant during project construction.	City of Long Beach
Mitigation Measure NOI-4: Prohibit Impact Sheet Pile Driving. Impact sheet pile driving should be prohibited on the Synergy Oil Field site. Only vibratory sheet pile driving shall be employed.	Written verification on site plans	Continuously by the Applicant during project construction.	City of Long Beach

Table 11-1 Mitigation Monitoring and Reporting Program

Mitigation Measure	Method of Verification	Responsibility/Timing of Implementation	Enforcement Agency
3.13 Public Services			
<p>Mitigation Measure PS-1: Fire Prevention and Protection Training. Prior to the start of construction activities, the Applicant shall prepare and conduct a fire prevention and protection training for all construction personnel associated with the proposed project. Topics shall include general fire prevention practices such as avoiding smoking on site as well as specific preventative measures pertaining to high-fire-risk activities including handling of oil and welding and cutting. Personal protection measures including the locations of fire extinguishers on the project site and site exit routes should also be disclosed to ensure construction worker safety in the event of a fire. The material for the training shall be obtained in consultation with the Long Beach Fire Department.</p>	<p>Written verification shall be made available to the City upon request.</p>	<p>By the Applicant prior to project construction.</p>	<p>City of Long Beach</p>

Ordinance
Amending SEADIP PD-1

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

1 Southeast Area Development and Improvement Plan (SEADIP) (PD-1) in its entirety; and
2 NOW, THEREFORE, the City Council of the City of Long Beach ordains as
3 follows:

4 Section 1. The Southeast Area Development and Improvement Plan
5 (SEADIP)(PD-1) is hereby amended and restated in its entirety as set forth in Exhibit "A",
6 which exhibit is attached hereto, and incorporated herein by this reference, as though set
7 forth in full, word for word.

8 Section 2. The City Clerk shall certify to the passage of this ordinance by
9 the City Council and cause it to be posted in three (3) conspicuous places in the City of
10 Long Beach, and it shall take effect on the thirty-first (31st) day after it is approved by the
11 Mayor.

12 I hereby certify that the foregoing ordinance was adopted by the City
13 Council of the City of Long Beach at its meeting of _____, 20__ by the
14 following vote:

15 Ayes: Councilmembers: _____
16 _____
17 _____
18 _____

19 Noes: Councilmembers: _____
20 _____

21 Absent: Councilmembers: _____
22 _____

23 _____
24 _____
25 City Clerk

26 Approved: _____
27 (Date) Mayor

EXHIBIT A

SOUTHEAST AREA DEVELOPMENT AND IMPROVEMENT PLAN (SEADIP) (PD-1)

Ordinance History: C-5328, 1977; C-5336, 1977; C-5501, 1979; C-6058, 1984, C-6058, 1987; C-6424, 1987; C-6425, 1987; C-6448, 1987; C-7528, 1998; C-7625, 1999; C-7904, 2004; 06-0001, 2006;

The Southeast Area Development and Improvement Plan provides for a total community of residential, business and light industrial uses integrated by an extensive system of parks, open space, and trails. The residential areas shall be family-oriented; the predominant type shall be sales units, although provision is also made for moderately priced apartments as well as luxury condominium units. In reviewing and approving site plans and tract maps for the development of the areas within the City of Long Beach, the City Planning Commission shall be guided by the goals and policies of the Specific Plan and the Commission shall not permit variance from those standards unless it finds that such variance meets the intent of the original standards and is consistent with the overall goals and objectives of the adopted Specific Plan.

A. PROVISIONS APPLYING TO ALL AREAS

1. Homes and offices shall be oriented toward open space, green belts and water wherever possible. Vehicular access shall generally be provided from the side opposite these natural amenities.
2. Areas, which are designated for single-family detached dwellings, shall be developed in accordance with R-1-N standards. However, if the area is to be re-subdivided, lot size and lot width and setback may be reduced provided that adequate common open space and guest parking are provided, and that the design is consistent with the adjacent residential development.
3. Prior to issuance of a building permit, all infrastructure, including street improvements, fire hydrants, water lines, storm drains, and sanitary sewers shall be constructed on a block basis in accordance with the approved plans. Such improvements, including engineering plans, shall be financed by subdivider(s) or by an assessment district or both.
4. A minimum of thirty percent of the site shall be developed and maintained as usable open space (building footprint, streets, parking areas and sidewalks adjacent to streets shall not be considered usable open space) except in oil production areas where public safety and operational concerns require limiting access. Bicycle and pedestrian trails not included within the public right-of-way may be considered usable open space). All buildings shall be set back a minimum of twenty feet from all public streets and a wider setback may be required by individual subarea. Within this minimum twenty-foot setback area, a strip having a minimum width of ten feet and abutting the street shall be attractively landscaped.
5. The maximum height of buildings shall be 30 feet for residential and 35 feet for non-residential uses, unless otherwise provided herein.
6. Minimum parking for each residential unit shall be the same as required Citywide by the zoning regulations; except that, in that part of SEADIP within the coastal zone, coastal zone standards shall apply. Minimum parking for commercial and industrial uses shall be provided in accordance with parking standards as specified in the zoning regulations.

7. Navigable waterways shall not be extended unless it can be demonstrated that such extension will not have an adverse impact on water quality and boat traffic.
8. All developments shall be open and inviting to the public except in industrial and oil production areas where public safety concerns require limiting access. Specifically, the public shall not be excluded from use of private streets and bicycle and pedestrian trails, although the public may be excluded from private yard areas, from private recreation areas designed for the use of residents of the development, and from private drives serving parking lots and garage structures reserved for residents and their guests.
9. All development shall be designed and constructed to be in harmony with the character and quality of surrounding development so as to create community unity within the entire area.
10. Developers shall construct public open space, trails, pathways and bicycle trails for each development in such a manner that they will be generally accessible to the public and that they will interconnect with similar facilities in adjacent developments so as to form an integrated system of open space and trails connecting major points of destination.
11. Public access shall be provided to and along the boundaries of all public waterways as provided for in the wetlands restoration plan.
12. Public views to water areas and public open spaces shall be maintained and enhanced to the maximum extent possible, consistent with the wetlands restoration plan.
13. Adequate landscaping and required irrigation shall be provided to create a park-like setting for the entire area. A landscaped parkway area shall be provided along all developments fronting on Pacific Coast Highway, 2nd Street, Studebaker Road, Seventh Street and Loynes Drive.
14. No additional curb cuts shall be permitted on Pacific Coast Highway, 2nd Street, Studebaker Road, or Seventh Street, unless it can be shown that inadequate access exists from local streets, or unless specifically permitted by Subarea regulations provided herein. This restriction shall not preclude the provision of emergency access from these streets as may be required by the City.
15. All utility lines shall be placed underground and utility easements shall be provided as required unless waived by the Commission on the advice of the Director of Public Works.
16. Developers shall construct, in accordance with plans approved by the Director of Public Works, all necessary sanitary sewers to connect with existing public sewers, and shall provide easements to permit continued maintenance of these sewers by the City where the City accepts responsibility for such maintenance.
17. Developers shall construct, in accordance with plans approved by the Director of Public Works, all new streets and ways within the area. All streets and ways will include:
 - a. Roadway pavement, curbs and sidewalks approved by the Director of Public Works. The sidewalk requirement may be waived or the sidewalk may be combined with an enlarged bicycle trail in such cases where the Commission and the Director of Public Works determine that an independent sidewalk is not required for pedestrian convenience and safety.
 - b. Water lines approved by the General Manager of the Water Department.

- c. Fire hydrants approved by the Fire Chief and the General Manager of the Water Department.
 - d. Street lighting using low energy luminaries as approved by the Director of Public Works.
 - e. Storm drainage approved by the Director of Public Works.
 - f. Street trees approved by the Manager of the Park Bureau.
 - g. Street signs and pavement traffic markings approved by the Director of Public Works.
 - h. All traffic control devices required by the Director of Public Works.
18. Developers shall improve and dedicate to the City certain streets, recreation areas and other public facilities necessary to support the proposed private development, as specified by area in subsequent paragraphs. If any such required improvements are found by the Commission to be infeasible or undesirable for engineering, legal or other reasons, the Commission may accept alternative improvements proposed by the developer so long as they meet the intent of the original requirements and are consistent with the overall goals and objectives of the adopted Specific Plan. Developers shall make such improvements or furnish security in connection with such improvements prior to commencement of construction of adjacent areas, which the improvements are designed to support; improvements may be phased with the phased construction of such adjacent areas. In those cases where the developer is to dedicate land area for subsequent improvement by the City, the developer shall not be required to convey such area until the City has budgeted funds for the improvements.
19. Developers shall make provision for the continued private maintenance of all common areas that are not to be dedicated and accepted by the City, and of all ways not to be dedicated and accepted by the City, including maintenance of street lighting, walks, curbs, storm drainage, water lines, fire hydrants, and street trees. Such provisions shall be perpetuated by their inclusion in the covenants, conditions, and restrictions of the property owners.

B. RESPONSIBILITY FOR CONSTRUCTION AND MAINTENANCE OF WETLANDS AND BUFFERS

The Wetlands

1. The wetlands and associated habitats, and all fresh, brackish and tidal water supply and control systems shall be constructed at the expense of the developers of Areas 11a, 25 and 26, unless otherwise provided for by agreements between land owners and the managing agency. The developer(s) of commercial uses on Subareas 11a and 25 shall be responsible for wetlands development of Subareas 23 and 33, respectively. The developer(s) of Area 26 shall be responsible for wetlands development of Area 27.
2. Owing to the need to make connections with the existing tidal marsh, the major wetlands restoration project between Los Cerritos Channel and 2nd Street shall be accomplished in accordance with a wetlands restoration plan approved by the City and State and federal resource agencies. Restoration of wetlands north of the Los Cerritos Channel and south of the San Gabriel River need not be accomplished concurrently with the major restoration project, or with each other, however, prior to the issuance of permits for residential or commercial development in Areas 25 or 26, each applicant shall develop a

detailed phasing plan that assures that restoration of wetlands north of the Los Cerritos Channel and south of the San Gabriel River will be completed prior to or concurrently with the completion of urban development. Said detailed phasing plans shall be submitted for approval to the agency responsible for granting the coastal permit.

3. The standard of wetlands restoration for Area 11a and 33 is that it shall be completed pursuant to a wetlands restoration plan approved by the City, State and federal resource agencies. The approved wetlands restoration plan shall include a description of the habitats to be restored, and a phasing plan for implementation. Prior to or concurrently with upland development on related areas. This standard of wetlands restoration for wetlands north of the Los Cerritos Channel and south of the San Gabriel River may be satisfied by using one of the following options:
 - a. Percentage Option. Whenever part of the development acreage is built upon, an equal percentage of the future wetland acreage will be developed as wetlands; and
 - b. Acre-for-Acre Option. For every acre of wetland identified for fill and/or consolidation under the Local Coastal Plan that will be covered by the development, the developer shall improve one acre of wetland.
4. Exceptions to this standard may arise in Areas 25, 26 and 27 where continuing oil operations and/or leasing problems may make it impossible to fulfill part of a permanent wetlands obligation in connection with upland developments. In such instances (and only in such instances), the following method of fulfilling the wetland obligation may be utilized.
 - a. The developer must first develop wetlands on all areas designated for wetlands, which are not encumbered, by active oil operations and/or leases.
 - b. If the full wetlands obligation is not satisfied thereby, this obligation may be fulfilled by construction of interim wetland areas as a temporary wetlands restoration measure. If such an interim restoration alternative is needed, an interim wetlands restoration program may be developed for up to 8 acres of the total wetlands obligation for development of Parcel 26, and restoration of areas of Subareas 11a, 25, and 33 which are not encumbered by active oil operations or oil leases, where continuing oil operations and/or leasing problems may interfere with the total restoration program as set forth in the Wetlands Enhancement Plan. Such a program shall be subject to review and approval by the Executive Director of the California Coastal Commission in consultation with the Department of Fish and Game.

This alternate interim wetlands restoration program shall at minimum, include provisions that:

- (1) Identify location and size of affected developable areas and proposed interim wetland areas, and provide for the construction of interim wetlands equal in productivity and size to areas filled. They shall be maintained for wildlife by the developer until such time as the major restoration program can be accommodated on encumbered lands.
- (2) Provide for a monitoring system undertaken in conjunction with Department of Fish and Wildlife, assuring biological values of the interim wetlands.

- (3) Where legally possible, place deed restrictions over the interim wetlands prohibiting development in such areas until the implementation of the primary restoration program.
- (4) Provide for the construction of the interim wetlands prior to or concurrently with the development of wetland areas of Areas 25 and 26 that cannot be directly mitigated by the acre-for-acre restoration option set forth in the land use plan.
- (5) Insure that interim wetlands are to be viewed as temporary and shall not in any way be construed to increase the total wetland obligation within the study area. These areas may be converted to upland areas for development purposes upon completion of the primary restoration project.
- (6) When sufficient on-site acreage is not available, use of off-site acreage within the San Gabriel River Wetlands system may be permitted for interim wetlands, with such location of off-site interim wetlands being subject to the approval of the Executive Director of the California Coastal Commission in consultation with the Department of Fish and Wildlife.

5. If an owner/developer elects to utilize the temporary wetlands option to obtain permits and proceed with development, it is necessary to provide a mechanism, which will assure that monies for future construction of permanent wetlands to replace the temporary wetlands will be available when such permanent construction is imminent. This is particularly important in view of the fact that many years may separate the construction of the temporary and permanent wetlands, and that during that span of time, title may change several times and the obligation for permanent wetlands construction may become clouded or lost. Therefore, when an owner/developer utilizes the temporary wetlands option (in the limited circumstances described in #4 above), he/she must deposit monies in a Wetlands Restoration Fund, under the terms described below, (or provide other means to guarantee development of the permanent wetlands):

- a. The construction assurance funds shall be deposited at the time the developer applies for construction permits for a temporary wetlands program;
- b. The amount of the funds to be deposited shall be derived from the cost estimate referred to in Item 5c, below;
- c. The first developer shall be responsible for the preparation of construction drawings, specifications, and cost estimates for the total wetland plan in his area. Such cost estimates shall include a contingency factor, which is normal and customary in projects of this magnitude and complexity. These shall be approved by the engineer of the local jurisdiction in consultation with the Department of Fish and Wildlife;
- d. The Wetlands Restoration Fund shall be established by the City of Long Beach when the first assurance payment is imminent. The fund shall be established in an interest-bearing account. Interest shall accrue to the account. As much as possible, the account shall be managed to earn sufficient annual interest to match the annual increases in the Consumer Price Index for Southern California.

Monies shall be withdrawn from the fund to pay for the construction of permanent wetlands deferred through use of the temporary option. Any monies remaining in

the fund, including interest, after all wetlands are totally restored, shall be utilized for on-going maintenance of the wetlands.

When an agency or non-profit corporation accepts permanent management responsibilities of the wetlands, the Fund may be transferred to that agency or corporation.

- e. Wetlands in those areas for which assurance funds were deposited shall be developed at the first available opportunity. When an agency or non-profit corporation accepts permanent management responsibilities of the wetlands, the Fund may be transferred to that agency or corporation.
6. Overall custodial and interpretive management and financial responsibility for maintenance of Los Cerritos Wetlands shall be vested in an appropriate governmental agency or private non-profit corporation upon the initiation of the first wetlands restoration project such as the Los Cerritos Wetlands Authority. Prior to issuance of any permits for any projects related to wetlands restoration, nomination of the managing agency shall be made by the City of Long Beach with the concurrence of the State Department of Fish and Wildlife and California Coastal Commission.

The Buffers

1. The wetlands are to be separated from urban developments by "buffers" In the context of this LCP, the buffers are treated as a part of the adjacent urban developments, as they will form a part of the amenities. Construction and maintenance of the buffers, therefore, falls entirely on the developers and their successors in interest. The reader should note that buffers are constructed only north of 2nd Street. The restored wetlands south of 2nd Street will have no buffers, owing to the fact that they will be separated from other uses by natural barriers.
2. As part of any wetlands restoration activity, buffers between subareas 11a and 33 (or wetlands and non-wetlands areas) shall be created, in accordance with an approved wetlands restoration plan. If urban developments remain the property of landowners and/or developers, they shall be responsible for continuous maintenance of the buffers. This responsibility shall run with the land. If urban developments become condominiums, the buffers shall become a part of the area held in common, and continuous maintenance shall be the responsibility of the property owner's association(s). The agency in charge of the management of the restored wetlands may provide comments and recommendations to those responsible for maintenance of the buffers if lack of proper maintenance is causing the buffers to fail in their primary mission to prevent visual and physical access to the wetlands habitats. Breaches in the buffer which seriously threaten habitat values in the wetlands, and which have been reported by the wetlands management agency and have not been repaired in a timely fashion by the individual or agency responsible for maintenance, may be repaired by the wetlands management agency. Costs for such repairs shall be collected from the property owner's association.
3. Where property owners' associations are formed, the requirement for continuous buffer maintenance shall be included in their Articles of Incorporation, and monthly dues shall be sufficient for this purpose.
4. The primary mission of the buffer is to prevent physical access into the wetlands and to prevent visual disturbances of wetland wildlife. The buffer, as shown in the Local Coastal Plan, consists of a berm of mounded soil, a fence, and plant material. Plant material will be chosen to be (in descending order of priority):

- a. of a growth form that supports the primary mission (i.e., of assistance in preventing access and/or screening development from the wetlands);
- b. compatible with soil, water and climate conditions of the immediate site;
- c. fast growing;
- d. compatible with adjacent development;
- e. low maintenance; and
- f. of wildlife food and/or cover value.

C. SPECIFIC DEVELOPMENT AND USE STANDARDS

SUBAREA 1

- a. Use: Residential.
- b. Maximum Density: 9.5 dwelling units/gross acre.
- c. Planning or Coastal Commission may require such additional parking (over and above the minimum of two integral spaces) as it determines to be necessary for guests and for storage of boats and recreational vehicles.
- d. The site plan should provide for views of Marine Stadium from Appian Way; a minimum of 20 percent of the property frontage along Appian Way shall be left open to Marine Stadium.
- e. Developers shall construct, in accordance with plans approved by the Director of Public Works, Paoli Way from its present terminus to the proposed public park in Area 32 and dedicate the same to the City.
- f. Vehicular access shall be limited to no more than two points from Appian Way if the area is developed as a single entity, or to no more than three points if the area is developed as two separate parcels.

SUBAREA 2 (a)

- a. Use: Residential.
- b. This area is fully developed in accordance with Special Use Permit S-90-72 and Subdivision Tract No. 30643.

SUBAREA 2 (b)

- a. Use: Residential.
- b. Maximum density: 8.4 dwelling units/gross acre (number of permitted units to be calculated on the basis of gross area, including any land area to be dedicated to the City as public park).
- c. Convenient public street access shall be provided through the site in accordance with the adopted Specific Plan, and to Marine Stadium and the public park proposed for Area 31.

- d. Developers shall construct, in accordance with plans approved by the Director of Public Works, bicycle and pedestrian trails along abutting waterways and connecting the proposed trails on Loynes Drive extension to the proposed park in Area 32.

SUBAREA 3 (a)

- a. Use: Residential.
- b. This area shall be developed with single-family detached dwellings at a maximum density of 8.4 dwelling units per gross acre.
- c. If feasible, Manila Avenue south of Colorado Street may be vacated and merged into adjacent property for development. No vehicular access to Bellflower Boulevard shall be permitted.
- d. If vacation of Manila Avenue is not feasible, Manila Avenue shall be developed as a service road with a ten-foot landscaping buffer parallel to Bellflower Boulevard.

SUBAREA 3 (b)

- a. Use: Residential
- b. This area shall be developed with single-family detached dwellings.

SUBAREA 4 (a)

- a. Use: Residential and Park (Sims Pond)
- b. Maximum density: 6.0 dwelling units/gross acre.
- c. This area shall be developed with single-family detached dwellings in accordance with Subdivision Tract 32868 (S-64-76).
- d. The developer shall construct, in accordance with specifications listed in the Director of Public Works' report on Tentative Tract 32868, an extension of Bellflower Boulevard from Colorado Street to Loynes Drive and an extension of Loynes Drive from street improvements made in Area 4 (b) and shall be reconstructed in accordance with plans approved by the Director of Public Works.

SUBAREA 4 (b)

- a. Use: Residential.
- b. Maximum density: 4.1 dwelling units/gross acre.
- c. This area shall be developed with single-family detached dwellings in accordance with the approved Tentative Tract Map No. 32277 (S-55-74).
- d. The developer shall construct, in accordance with plans approved by the Director of Public Works, and extension of Loynes Drive and parallel bikeway from Pacific Coast Highway westerly across the developers' lands to the extension of

Bellflower-Loynes roadways built in connection with the development of Area 4 (a) -- Tentative Tract 32868, and dedicate the same to the City.

- e. The developer shall construct, in accordance with plans approved by the Director of Public Works, necessary public access to the proposed public park in Area 31, and dedicate the same to the City.
- f. The natural wetland known as Sims Pond shall be preserved and maintained in accordance with the requirements of the California Department of Fish and Game.

SUBAREA 5 (a)

- a. Use: Residential.
- b. This area is fully developed in accordance with Special Use Permit No. S-37-69 and the approved Subdivision Tract No. 30911.

SUBAREA 5 (b)

- a. If this area remains in the ownership of the California Department of Transportation, it should be improved as landscaped open space. If sold, it shall be developed at a maximum density of 2.5 dwelling units per acre, and church uses may also be permitted.
- b. No direct access to this site shall be permitted from Pacific Coast Highway.

SUBAREA 6 (a)

- a. Use: Residential.
- b. This area is fully developed in accordance with Subdivision Tract No. 4681.

SUBAREA 6 (b)

- a. Use: Residential.
- b. Maximum density: 18.0 dwelling units/gross acre.
- c. Every effort shall be made to construct apartment units that can be priced so as to serve families of moderate income.

SUBAREAS 6 (c), 7 (a), 21 and 22 (b)

- a. Use: Residential.
- b. Maximum density: 5.62 dwelling units/gross acre.
- c. A variety of housing types and densities is encouraged, with higher density apartments oriented toward the golf course in Areas 7 (a) and 21.
- d. No more than three dwelling units shall be provided in any one structure in Areas 7 (a) and 21.
- e. A golf course open to the general public shall be constructed on Area 22 (b).

- f. No additional street access to Seventh Street shall be permitted.
- g. The developer shall construct, in accordance with plans approved by the Director of Public Works, a new street connecting Loynes Drive and Channel Drive, and a street connecting said new street to Margo Avenue in the vicinity of Sixth Street, and dedicate the same to the City.
- h. The developer shall construct, in accordance with plans approved by the Director of Public Works, a bicycle trail generally parallel to the new street connecting Loynes Drive and Channel Drive, and dedicate the same to the City. This trail will include a segment along Loynes Drive to connect with existing Vista Street, and a spur connection to Seventh Street opposite West Campus Drive.
- i. The developer shall construct a widening of Pacific Coast Highway in accordance with a plan prepared by the Director of Public Works, which calls for an eight-lane, divided highway with sidewalks and bike trails, and dedicate the same to the City.

SUBAREA 7 (a)

- a. Use: Residential
- b. Maximum density: 5.0 dwelling units/gross acre.
- c. This area shall be developed with single-family detached dwellings.

SUBAREA 8

- a. Use: Residential
- b. Maximum density: 15.6 dwelling units/gross acre
- c. Structures should be designed and located in such a manner as to minimize the obstruction of views from the adjacent Bixby Hill Community
- d. Only one point of access to Seventh Street shall be permitted, preferably via East Campus Drive. If the developer is unable to obtain permission from California State University to utilize East Campus Drive, access to Seventh Street may be provided via an extension of Pepper Tree Lane. This requirement shall not preclude the provision of a second emergency access as may be required by the City.
- e. The developer shall construct and dedicate a widening of Seventh Street in accordance with a plan prepared by the Director of Public Works to provide for a six-lane highway with curb, sidewalks, and bicycle trail.
- f. The developer shall construct, in accordance with plans approved by the Director of Public Works, an underpass of Seventh Street at the Los Cerritos Channel to provide for pedestrian and bicycle circulation between the residential developments and nearby public schools.
- g. The developer shall construct, in accordance with plans approved by the Director of Public Works, a bridge over Bouton Creek at the Los Cerritos Channel to provide for bicycle and pedestrian circulation from residential developments to the Hill Jr. High School.

SUBAREA 9

- a. Use: Residential
- b. This area is fully developed in accordance with Special Permit No. S-158-62 and subdivision Tract No.'s 24883 and 22087.

SUBAREA 10 (a)

- a. Use: Residential
- b. This area is fully developed in accordance with Special Permit No. S-174-60.

SUBAREA 10 (b)

- a. Use: Residential
- b. Maximum density: 11.7 dwelling units/gross acre.
- c. Structures should be designed and located in such a manner as to not obstruct views from the Belmont Shore Mobile Estates Park, Area 10 (a). No more than 1/3 of the dwelling units should be located in the narrow eastern section of the site along the Los Cerritos Channel.
- d. A bicycle and pedestrian trail shall be provided through the site from Loynes Drive to the proposed public park in Area 23.

SUBAREA 11 (a)

- a. Use: Commercial; wetlands and open space; existing oil production operations; recreation; accessory uses including visitors' centers or similar facility.
- b. Commercial uses shall be developed in accordance with the development standards set forth in Long Beach Municipal Code Section 21.32.
- c. Wetlands shall be restored pursuant to one of two means:
 - (1) A wetlands restoration plan that is intended to support creation and operation of a wetlands mitigation bank that is approved by State and federal resource agencies, including but not limited to the U.S. Army Corps of Engineers and the California Coastal Commission; or
 - (2) A wetlands restoration plan that is approved by State and federal resource agencies, including the U.S. Army Corps of Engineers and the California Coastal Commission, and implemented upon cessation of oil operations.
- d. Passive recreation uses may be permitted, including trails.
- e. The existing Bixby Ranch building shall be used to support the oil production operations. At such time the building is no longer used for oil production operations, the building may be used to support passive recreation uses, including use as a visitor's center.

- f. To ensure that area 11(a) is open and inviting to the public as far as is consistent with the preservation of the wetlands and continuing oil production operations, the following special design features shall apply:
- (1) One pedestrian path and one bicycle trail entrance shall be placed along 2nd Street connecting pedestrian paths and bicycle ways along these highways to the interior trail system. Design treatment of such connections shall ensure that they are visually prominent and open to the public.
 - (2) The vehicular entrance at 2nd Street shall provide an open view to wetlands.
 - (3) A visitor parking lot shall be provided adjacent to the Bixby Ranch office building for use by the public prior to commencement of building operations.
- g. In addition to the setback for buffer, the elevation and setbacks between a occupiable structure and wetland edge shall be sufficient to ensure stability during liquefaction events caused by the maximum credible earthquake. Such data, including review by the State Division of Mines and Geology, shall be provided at time of site plan approval for any development in this subarea.

SUBAREA 11 (b)

- a. Use: Residential at a maximum density of 8.4 units per gross acre shall be permitted.
- b. No more than three dwelling units shall be provided in any one structure, and all shall be designed as sales units. Height limit is two stories in 30 ft. maximum.
- c. Until Area 11 (a) is developed, access may be provided on a temporary basis from Pacific Coast Highway. The developer shall construct in accordance with plans approved by the Director of Public Works, a pedestrian walkway adjacent to Los Cerritos Channel connecting with a pedestrian walkway to be constructed by the developer of Parcel 11 (a) adjacent to Parcel 33, at one end, and at the other end, connecting with either a pedestrian/bikeway along Pacific Coast Highway, or, at the discretion of the Director of Public Works, with the walkway adjacent to the bulkhead in the southeast portion of Parcel 31.
- d. Prior to development, the final details concerning wetlands consolidation on this Parcel shall be approved by the Department of Fish and Game.

SUBAREA 12

- a. Use: Residential
- b. This area is fully developed in accordance with Special Use Permit S-140-72 and the approved Subdivision Tract No's. 31204, 31203, 31205, and 29312.

SUBAREA 13

- a. Use: Commercial
- b. This area is fully developed in accordance with Special Use Permit S-44-73.

SUBAREA 14

- a. This area, in the ownership of the California Department of Transportation, should be improved as landscaped open space. If the northwest quadrant is sold, it shall be developed with a maximum of 3.0 dwelling units/gross acre. Access to this property from Seventh Street shall be permitted only through Area 8 or via an extension of Pepper Tree Lane.

SUBAREA 15

- a. Use: Commercial.
- b. This area is fully developed in accordance with Special Use Permit No's S-174-60, S-5-60, S-180-72, and S-178-69.

SUBAREA 16

- a. Use: Commercial
- b. This area is fully developed in accordance with Special Use Permit No's. S-167-72 and S-13-61.

SUBAREA 17

- a. Use: Commercial
- b. This area is fully developed in accordance with the CR zone.

SUBAREA 18

- a. Use: Commercial
- b. This area is fully developed in accordance with Special Use Permit No. S-29-75. Also see Area 26.

SUBAREA 19

- a. Use: Industrial, Oil Production Uses
- b. This area is fully developed in accordance with the provisions of the MG zone.
- c. Commercial storage/self-storage (21.15.570) shall be allowed by Conditional Use Permit (21.52.219.5).
- d.

SUBAREA 20

Use: Channel View Park, a public park.

SUBAREA 21

See Area 6 (c).

SUBAREA 22 (a)

- a. Use: Residential
- b. Maximum density: 8.0 dwelling units/gross acre.
- c. Site plan should provide for views of the proposed golf course on Area 22 (b) from Loynes Drive; a minimum of 20 percent of the property frontage along Loynes Drive shall be left open to the golf course.
- d. No vehicular access shall be provided to Pacific Coast Highway, and no more than two access points to Loynes Drive shall be provided.
- e. The developer shall construct, in accordance with plans approved by the Director of Public Works, a bikeway along the Loynes Drive frontage of his property, and dedicate the same to the City.
- f. The developer shall construct a widening of Pacific Coast Highway in accordance with a plan prepared by the Director of Public works, which calls for an eight lane divided highway with sidewalks, and dedicate the same to the City.
- g. The developer shall cooperate with the Director of Public Works and with the adjacent property owner of Area 22 (b) to provide for the design and construction of a small portion of the new roadway between Loynes Drive and Channel Drive through the eastern portion of Area 22 (a).

SUBAREA 22 (b)

See Area 6 (c).

SUBAREA 23

- a. The two wetland concepts generally outlined shall include a 8.3 acre brackish pond on Area 23 provided that the Executive Director of the California Coastal Commission determines (i) in addition to the setback for buffer, the elevation and setbacks between development and wetland edge shall be sufficient to ensure stability during liquefaction events caused by the maximum credible earthquake; (ii) that the location and operation of the proposed wetland are acceptable to the Regional Water Quality Control Board, the State Department of Health and to the Local Mosquito Abatement District.
- b. If approval from these agencies results in reductions to the net size of the proposed wetland, restoration at this site shall only occur if the remaining area is sufficient to create a wetland at least the same size as the existing brackish pond at the Marketplace.

SUBAREA 24

- a. This designation actually applies to two distinct parcels of land, one at the southwest corner of Loynes Drive and Studebaker Road (called herein "24 South"), and the other across Loynes Drive at the northwest corner (called herein "24 North").
- b. Area 24 South is to be developed as an overlook area and interpretive center for the bordering marsh. The developer of Subarea 11 (a) shall dedicate Parcel 24

South to the State of California or other agency responsible for management of Area 33.

- c. Area 24 North shall be dedicated to the City of Long Beach for park and playground purposes.
- d. The owner of Area 24 shall dedicate area along Studebaker Road for the bicycle trail to be built along Studebaker Road.

SUBAREAS 25 and 26

- a. Use: (Area 25) Business Park (Office Commercial and light Industrial); restaurants and hotel; oil production and accessory uses. Commercial / Self-storage (defined by 21.15.570) is a prohibited land use.
- b. Use: (Area 26) Business Park (Office Commercial and Light Industrial). Commercial / Self-storage (defined by 21.15.570) is a prohibited land use.
- c. These Subareas are intended for office commercial, light industrial, and oil production uses, which will provide mitigation to address project-related noise, odor, or air emissions through compliance with the California Environmental Quality Act. .
- d. The Planning Commission may adopt specific performance standards or a specific list of permitted uses to guide developers and the Planning Commission.
- e. No outdoor storage of materials and equipment shall be permitted without being screened from public view. Loading and service areas shall not be permitted within required yard setback areas and all such loading and service areas shall be enclosed or screened so as not to be visible from the street.
- f. No more than 40,000 square feet of floor area for medical/dental offices, and no more than 16,000-20,000 square feet of floor area shall be restaurant use.
- g. Business park uses shall be predominantly office commercial uses, and no less than 75 percent of the area proposed for business park uses shall be devoted to office commercial use. For new commercial uses, not more than 35 percent of the area of each office commercial lot shall be occupied by a building or buildings.
- h. For new commercial development, all improved building sites shall have a minimum landscaped coverage of 15 percent of the area of each lot and shall be provided with an irrigation system. Boundary landscaping shall be provided on all internal property lines. Parking areas shall be landscaped with a minimum of one tree per each five parking stalls. The proposed retention basin in Area 25, if constructed, shall be developed in a park-like manner.
- i. Required yard areas: Thirty feet front; ten feet side (except 30 feet side when a side yard abuts Pacific Coast Highway or Westminster and except that the internal side yard may be 0 feet provided the main building on the same lot line on the abutting lot is set back 0 feet and both lots are developed at the same time).

- j. A 30 foot-wide landscaped setback shall also be required along the San Gabriel River Channel property line to create a park-like setting for the bicycle trail along the river bank. (This substitutes for the park in the former Area 30).
- k. One access from 2nd Street shall be allowed to Area 26; no addition curb cuts shall be permitted on 2nd Street or Pacific Coast Highway. All other vehicular access shall be from Studebaker Road or Shopkeeper Drive.
- l. The developer(s) of Area 25 shall contribute on a fair share basis to the widening of Pacific Coast Highway in accordance with a plan approved by the Director of Public Works, an extension of Studebaker Road in accordance with a plan approved by the City, and dedicate the same to the City.
- m. The developer of Area 25 shall construct, in accordance with plans approved by the Director of Public Works, a bicycle trail along the south side of 2nd Street and along the north side of Pacific Coast Highway, south of Studebaker Road. The developer shall dedicate the same to the City.
- n. The developers of Areas 25 and 26 shall contribute on a fair share basis for the construction of any improvements necessary to cross the San Gabriel River Regional Bikeway from the east levee to the west levee of the river at 2nd Street. These should be limited to on-street pavement markings.
- o. The developers shall contribute on a fair share basis to participate in the cost of constructing the connection between Studebaker Road and Shopkeeper Road, the amount of that participation to be calculated to be the length in feet of property fronting on each side of said roadway multiplied by the average cost per linear foot of constructing one lane of said roadway, to the satisfaction of the City Engineer.
- p. The developers of Areas 25 and 26 shall contribute on a pro rata basis to improve that portion of the San Gabriel River bank adjacent to their property with a pedestrian walk, bicycle trail and related landscaping.
- q. The developer of Area 26 shall construct a bicycle trail along the east side of Studebaker Road for the entire frontage on said road.
- r. A habitat corridor shall be provided in Area 25 from 2nd Street to the San Gabriel River. Such corridor shall be not less than 400 feet in width (when measured from the existing buildings in Area 18, the Marketplace) and shall include Shopkeeper Drive. No building shall be allowed in this corridor, except that no less than 70 feet from Shopkeeper Drive, single story (not to exceed 20 feet in height) commercial office or light industrial use building shall be allowed. The long axis of any buildings in the non-wetland habitat corridor shall be parallel to the long axis of the corridor.

SUBAREA 27

This area is to be utilized entirely in the wetlands restoration program.

SUBAREA 28

This site is owned by Orange County and is utilized by the County as a retention basin.

SUBAREA 29

- a. Use: Commercial office, restaurants, commercial recreation and commercial retail uses.
- b. All improved building sites shall have a minimum landscaped coverage of 15 percent and shall be provided with an irrigation system. Boundary landscaping shall be provided on all interior property lines. Parking areas shall be landscaped with a minimum of one tree per each five parking stalls.
- c. No more than 5,000 square feet of floor area shall be used for medical/dental offices.
- d. The developer shall construct a widening of Pacific Coast Highway in accordance with a plan prepared by the Director of Public Works which calls for a six lane, divided highway with sidewalks and bike trail, and dedicate the same to the City.
- e. The developer shall dedicate and improve necessary land along the San Gabriel River bank to provide a pedestrian walk, bicycle trail and related landscaping, such development to continue one-half of the distance under the Pacific Coast Highway bridge to join with similar facilities in Area 25. Also, the developer shall continue Studebaker extension bikeway from Pacific Coast Highway to Marina Drive.
- f. The maximum height of buildings shall be 30 feet for residential and 35 feet for non-residential uses, unless otherwise provided herein. Architectural features, such as tower elements, may be approved up to a height of 43 feet through the site plan review.
- g. Curb cuts shall be permitted on Pacific Coast Highway, Studebaker Road, and Marina Drive subject to the approval of the City Traffic Engineer and/or CALTRANS, where appropriate.
- h. Development in or near wetlands. The City shall preserve and protect wetlands within Subarea 29. "Wetlands" shall be defined as any area, which may be covered periodically or permanently with shallow water, including, but not limited to, saltwater marshes, swamps, mudflats and fens. In addition, "wetlands" shall also be defined as specified in the Commissions Statewide Interpretive Guidelines and Section 13577(b) of the California Code of Regulations. As part of any discretionary review or the required environmental analysis associated with a development proposal in Subarea 29, the applicant shall provide evidence from a qualified biologist whether or not wetlands exist on the site of the proposed development. If any wetlands are identified on the site, the applicant shall be required to obtain confirmation of the wetlands delineation from the U.S. Fish & Wildlife Service and/or the State Department of Fish & Game, and the applicant shall solicit the resource agencies' recommendation on the appropriateness of the proposed development, the permissibility of the development impacts, and any required mitigation.

All proposed development must conform to the following:

Within Subarea 29, the diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of the Coastal Act where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures

have been provided to minimize adverse environmental effects, and shall be limited to the following (1-8):

- (1) New or expanded port, energy and coastal-dependent industrial facilities, including commercial fishing facilities.
- (2) Maintaining existing, or restoring previously dredged depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
- (3) In wetland areas only, entrance channels for new or expanded boating facilities, and in degraded wetlands identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411 of the Coastal Act, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.
- (4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
- (5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- (6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
- (7) Restoration purposes.
- (8) Nature study, aquaculture, or similar resource dependent activities.

Where it has been determined that there is no feasible less environmentally-damaging alternative and the proposed impacts are one of the eight allowable uses specified above, the diking, filling or dredging of open coastal waters, wetlands, estuaries and lakes shall be mitigated to minimize adverse environmental effects through habitat replacement, restoration and enhancement activities. There shall be no net loss of wetland acreage or habitat value as a result of land use or development activities. Mitigation ratios may vary depending on the specific site conditions; location of habitat areas; the amount of impacts, the nature, quality and uniqueness of the affected habitat, resource agency consultation, precedential coastal development permit decisions, and other factors. However, typical mitigation ratios are 3:1 for riparian areas and 4:1 for Saltmarsh habitats. Specifically, when wetland impacts are unavoidable, replacement of the lost wetland shall be required through the creation of new wetlands at a ratio determined by the appropriate regulatory agencies but in any case at a ratio of greater than one acre provided for each acre impacted so as to ensure no net loss of wetland acreage. Replacement of wetlands on-site or adjacent, within the same

wetlands system and in-kind mitigation shall be given preference over other mitigation options.

Development located adjacent to wetland habitat areas shall not adversely impact the wetlands. A 100 foot buffer shall be provided between development and wetland habitats and a 50 foot buffer shall be provided between development and riparian areas unless, in consultation with the U.S. Fish & Wildlife Service and/or the State Department of Fish & Game, it is determined that a reduced buffer is sufficient. Uses and development within buffer areas shall be limited to minor passive recreational uses or other improvements deemed necessary to protect the habitat and shall be located in the portion of the buffer area furthest from the wetland. All identified wetlands and buffers shall be permanently conserved or protected through the application of an open space easement or other suitable device.

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

In addition to the other provisions of this section, diking, filling or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish & Game, including but not limited to the 19 Coastal Wetlands identified in its report entitled "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with the provisions of the Coastal Act.

Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients, which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a Coastal Development Permit for such purposes are the method of placement, time of year of placement and sensitivity of the placement area.

SUBAREA 30

(Deleted) .

SUBAREA 31

Use: Jack Dunster Marine Biological Reserve and Costa del Sol, public parks.

SUBAREA 32

- a. Use: Public park.
- b. This area is to be improved by the City.

SUBAREA 33

- a. Use: Wetlands and open space; existing oil production operations, recreation.
- b. Upon cessation of oil operations, the area shall be restored pursuant to the wetlands restoration plan approved by the City, State and federal agencies.

Wetlands shall be restored pursuant to one of two means:

- (1) A wetlands restoration plan that is intended to support creation and operation of a wetlands mitigation bank that is approved by State and federal resource agencies, including but not limited to the U.S. Army Corps of Engineers and the California Coastal Commission; or
 - (2) A wetlands restoration plan that is approved by State and federal resource agencies, including the U.S. Army Corps of Engineers and the California Coastal Commission, and implemented upon cessation of oil operations.
- c. Passive recreation uses shall be permitted, including trails.
 - d. The wetlands restoration area may be permitted to operate as a wetlands mitigation bank if approved by State and federal agencies.

The recently established least tern site shall be designated as habitat area and preserved as such unless or until the Department of Fish and Game may determine that it is appropriate to experiment with enhancing least tern habitat and allow up to two acres within Parcel 33.

Resolution
Submitting to Coastal
Commission

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

1 RESOLUTION NO.

2
3 A RESOLUTION OF THE CITY OF LONG BEACH
4 AUTHORIZING THE DIRECTOR OF DEVELOPMENT
5 SERVICES TO SUBMIT AMENDMENTS TO THE LONG
6 BEACH ZONING AND OIL CODE REGULATIONS TO THE
7 CALIFORNIA COASTAL COMMISSION FOR REVIEW AND
8 APPROVAL
9

10 WHEREAS, on _____, 2018, the City Council of the City of Long
11 Beach amended and restated certain provisions of the Long Beach Zoning Regulations of
12 the City of Long Beach related to the Southeast Area Development and Improvement
13 Plan (SEADIP)(PD-1) and likewise made certain amendments to the City's Oil Code
14 regulations; and

15 WHEREAS, it is the desire of the City Council to submit the above
16 referenced Zoning and Oil Code regulation amendments to the California Coastal
17 Commission for its review as implementing ordinances of the Long Beach Local Coastal
18 Program (LCP); and

19 WHEREAS, the Planning Commission and City Council gave full
20 consideration to all facts and the proposals respecting the amendments to the Zoning
21 and Oil Code regulations at a properly noticed and advertised public hearing; and

22 WHEREAS, the City Council approved the proposed changes to the LCP by
23 adopting the amendments to SEADIP and the City's Oil Code. The proposed SEADIP
24 Zoning and Oil Code regulation amendments are to be carried out in a manner fully
25 consistent with the Coastal Act and become effective in the Coastal Zone immediately
26 upon Coastal Commission certification and approval; and

27 WHEREAS, environmental documentation has been prepared, certified,
28 received and considered as required by law, and the City Council hereby finds that the

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CHARLES PARKIN, City Attorney
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Lona Beach, CA 90802-4664

1 proposed amendments will not adversely affect the character, livability or appropriate
2 development of the surrounding properties and that the amendments are consistent with
3 the goals, objectives and provisions of the City's General Plan;

4 NOW, THEREFORE, the City Council of the City of Long Beach resolves as
5 follows:

6 Section 1. The amendment to the Southeast Area Development and
7 Improvement Plan (SEADIP)(PD-1) Zoning regulations of the City of Long Beach adopted
8 on _____, 2018, by Ordinance No. ORD-18-_____, and the Amendments
9 to the City's Oil Code (Title 12), adopted on _____, 2018, by Ordinance No.
10 ORD-18-_____, copies of which are attached to, and incorporated in this resolution,
11 as Exhibits "A" and "B", respectively, are hereby submitted to the California Coastal
12 Commission for its earliest review as to that part of the ordinances that directly affect land
13 use matters in that portion of the California Coastal Zone within the City of Long Beach.

14 Section. 2. The Director of Development Services of the City of Long
15 Beach is hereby authorized to and shall submit a certified copy of this resolution, together
16 with appropriate supporting materials, to the California Coastal Commission with a
17 request for its earliest action, as an amendment to the Local Coastal Program that will
18 take effect automatically upon Coastal Commission approval pursuant to the Public
19 Resources Code, or as an amendment that will require formal City Council adoption after
20 Coastal Commission approval.

21 Section. 3. This resolution shall take effect immediately upon its adoption
22 by the City Council, and the City Clerk shall certify the vote adopting this resolution.

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I certify that this resolution was adopted by the City Council of the City of Long Beach at its meeting of _____, 2018, by the following vote:

Ayes: Councilmembers: _____

Noes: Councilmembers: _____

Absent: Councilmembers: _____

City Clerk

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
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Long Beach, CA 90802-4664

Ordinance
Amending Oil Code
Title 12

OFFICE OF THE CITY ATTORNEY
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Long Beach, CA 90802-4664

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C. The creation of the Site will not unreasonably hinder production of existing petroleum reserves in the City.

NOW, THEREFORE, the City Council of the City of Long Beach ordains as follows:

Section 1. Section 12.08.100 of the Long Beach Municipal Code is hereby amended to read as follows:

12.08.100.1 Area 8—Alamitos Heights and Flats.

Area 8 is that portion of the City described as follows:

Beginning at the intersection of the centerline of Santiago Avenue, 60 feet wide, and the southerly line of Colorado Street, 60 feet wide; thence east along the southerly line of Colorado Street to the boundary line of the City of Long Beach as established by Increment 11 of annexation to the City of Long Beach, filed with the Secretary of the State of California, December 17, 1923; thence southerly and easterly along the boundary line of the City of Long Beach as established by said Increment 11 and following its various courses to the most southerly corner of Lot 1, Tract No. 1077, as per map recorded in Book 18, page 195 of maps, records of the County; thence northwesterly along the southerly line of said Lot 1 to the intersection of a line 800 feet northeasterly of and parallel to the northeasterly line of the 200-foot right-of-way of the Pacific Electric Railway Company's Newport Beach Line, thence northwesterly along said parallel line to the northwesterly line of Parcel 1 of the property conveyed to the City by deed recorded in Book 4654, page 163, of official records in the Office of the County Recorder, having a bearing of south 74° 39' 30" west and a length of 401.30 feet; thence south 74° 39' 30" west 95.53 feet to an angle in said Parcel 1; thence south 56° 04' 30" west, 167.47 feet to the most westerly corner of said Parcel 1; thence north 56° 04' 25" west 311.34 feet to a point in the easterly line of Parcel 2 of said property conveyed to

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1 the City; thence south $80^{\circ} 07' 11''$ west, 102.51 feet to a point in the
2 southwesterly line of said Parcel 2; thence north $21^{\circ} 42' 40''$ west 309.95
3 feet along said southwesterly line of Parcel 2 to a point in a curve concave
4 to the south and having a radius of 1884.91 feet, a radial line passing
5 through said point of curve having a bearing of north $3^{\circ} 43' 54''$ east;
6 thence southeasterly along said curve an arc distance of 503.52 feet to the
7 end of said curve, a radial line passing through the end of said curve
8 having a bearing of north $19^{\circ} 02' 14.7''$ east; thence south $70^{\circ} 57' 45.3''$
9 east 122.99 feet to the centerline of Santiago Avenue, 60 feet wide; and
10 thence northerly along said centerline of Santiago Avenue to the point of
11 beginning. Provided, however, that it is unlawful hereafter to drill any new
12 well or to erect any derrick within that portion of Area 8 described as
13 follows: Beginning at the intersection of the centerline of Santiago Avenue
14 (60 feet wide) with the south line of Colorado Street (60 feet wide); thence
15 east along said south line of Colorado Street to the centerline of Manila
16 Avenue (60 feet wide); thence south 250 feet along said centerline of
17 Manila Avenue; thence west along a line 250 feet south of and parallel to
18 said south line of Colorado Street to the westerly line of Parcel 2 of the land
19 conveyed to the City by deed recorded July 17, 1926, in Book 4653, page
20 163, of official records in the Office of the County Recorder, thence
21 northwesterly along said westerly line of Parcel 2 to the south line of
22 Colorado Street (60 feet wide); thence east along said south line of
23 Colorado Street to the point of beginning.

24 Along with:

25 In the City of Long Beach, County of Los Angeles, State of
26 California, and is described as follows:

27 Parcels 4, 5 and 6, as shown on Parcel Map No. 19212, as per map
28 filed in Book 260, pages 93 and 94 of parcel maps, in the office of the

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1 recorder of said County; except therefrom all oil, gas, petroleum and other
2 hydrocarbon substances conveyed by various instruments both recorded
3 and unrecorded all confirmed and clarified by deed from Fred H. Bixby
4 Ranch Company, a California Corporation, recorded September 16, 1971
5 as instrument no. 3355, in Book D 5193 Page 959 of official records, which
6 deed recites that the grantees, their heirs, successors and assigns shall
7 have no right to enter upon the surface of the property or use the property
8 or any portion thereof above a plane parallel to and 500 feet below the
9 present surface thereof without the express approval in writing of the
10 grantor. Subject to covenants, conditions, restrictions, reservations,
11 easements and rights-of-way of record if any.

12
13 Section 2. The Long Beach Municipal Code is hereby amended by
14 adding Section 12.08.257 to read as follows:

15 12.08.257- Area 25 - 2nd St and Studebaker Road drill site.

16 Area 25 is that portion of the City described as follows:

17 A portion of Parcel 3 of City of Long Beach Lot Line Adjustment no.
18 9704-08, recorded December 12, 1997 as Instrument no. 97-1958951,
19 official records of Los Angeles County, California, being a portion of the
20 east one-half of section 2, township 5 south, range 12 west, in the Rancho
21 Los Alamitos, as shown on partition map recorded in Book 700, page 141
22 of deeds, in the office of the Los Angeles County Recorder, described as
23 follows:

24 Beginning at the southwest corner of said parcel 5, being the
25 southwest corner of said east one-half of section 2, and being the
26 centerline intersection of Westminster Avenue (100 feet wide) and
27 Studebaker Road (100 feet wide); thence north 00° 10' 03" east, along the
28 westerly line of said parcel 3, being the westerly line of said east one-half

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1 of section 2, and also being said centerline of Studebaker Road, a distance
2 of 400.00 feet, thence south 89° 50' 17" east, a distance of 493.10 feet;
3 thence south 64° 14' 06" east, a distance of 75.63 feet; thence south 00°
4 52' 38" west, a distance of 367.39 feet, to the southerly line of said parcel
5 3, being the southerly line of said east one-half of section 2, and also being
6 said centerline of Westminster Avenue. Thence north 89° 60' 17" west
7 along said southerly line and said centerline, a distance of 556.57 feet, to
8 the point of beginning.

9 Section 3. That the City Council hereby adopts as its own, the Findings
10 recommended by the Planning Commission in relation to the proposed amendments to
11 the City's Oil Code, which Findings are more fully set forth in the Recitals of this
12 Resolution, and which the City Council incorporates herein as though set forth in full,
13 word for word.

14 Section 4. The City Clerk shall certify to the passage of this ordinance by
15 the City Council and cause it to be posted in three (3) conspicuous places in the City of
16 Long Beach, and it shall take effect on the thirty-first (31st) day after it is approved by the
17 Mayor.

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I hereby certify that the foregoing ordinance was adopted by the City Council of the City of Long Beach at its meeting of _____, 20__ by the following vote:

Ayes: Councilmembers: _____

Noes: Councilmembers: _____

Absent: Councilmembers: _____

City Clerk

Approved: _____
(Date)

Mayor

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

**CITY OF LONG BEACH**

DEPARTMENT OF DEVELOPMENT SERVICES

333 West Ocean Blvd., 5th Floor Long Beach, CA 90802 (562) 570-6194 Fax: (562) 570-6068

November 30, 2017

CHAIR AND PLANNING COMMISSIONERSCity of Long Beach
California**RECOMMENDATION:**

Recommend that the City Council certify Environmental Impact Report (03-15) and approve a Zoning Code Amendment, Local Coastal Program Amendment, Site Plan Review, Oil Map Amendment, and Certificate of Compliance to consolidate existing oil operations, implement a wetlands habitat restoration project, and provide public access opportunities, located on four sites (Synergy Oil Field at 6433 E. 2nd Street, City property at the southeast corner of Studebaker Road and 2nd Street, Pumpkin Patch site at 6701 E. Pacific Coast Highway, and the Los Cerritos Wetlands Authority site at the northeast corner of Studebaker Road and 2nd Street) within the Southeast Area Development and Improvement Plan (SEADIP / PD-1) area. (District 3)

APPLICANTS: Beach Oil Minerals, LLC
Los Cerritos Wetlands Authority
(Application No. 1601-05 (A through D))

DISCUSSION

The Los Cerritos Oil Consolidation and Wetlands Restoration project (Project) site comprises four properties in the southeastern portion of the City. The Project site is generally bordered by the Los Cerritos Channel to the north, beyond which is a residential development; Studebaker Road to the east, beyond which is the AES Power Plant site, and the San Gabriel River; the San Gabriel River to the southwest, beyond which are undeveloped areas; and Pacific Coast Highway to the west, beyond which is commercial development and Alamitos Bay. The site includes Steamshovel Slough, which is approximately 1,950 feet long and is considered a historic or "ancient" marsh in that it has not been modified through dredging or filling.

The surrounding area was historically all wetlands, but is now characterized by the presence of remnant wetlands, marinas and harbors, oil fields, power plants, oil drilling, commercial development and low-density residential development. The oil fields were established in the 1930s and portions of two of the sites were used for a short time as a former municipal landfill.

Table 1 provides existing information about the four properties that comprise the Project site:

Table 1 – Existing Site Information				
Site	Size	Site Boundary	Existing Use	SEADIP Subarea
Synergy Oil Field	150 acres	North: Los Cerritos Channel East: Studebaker Road West: Pacific Coast Highway South: 2nd Street	Oil field (39 wells) / Synergy Office building / wetlands	11a and 33
City property	33 acres	North: 2nd Street East: Shopkeeper Road West: Private Property South: San Gabriel River	Wetlands / Oil field (13 wells)	25
Pumpkin Patch Site	7 acres	North: Studebaker Road (stub) East: City Property West: Pacific Coast Highway South: San Gabriel River	Seasonal pumpkin and Christmas tree sales / Undeveloped/1 well	25
LCWA site	5 acres	North: Private Property East: Private Property West: Studebaker Road South: Westminster Ave	Industrial Storage / Undeveloped	19

The Project proposes the following, to be phased over the course of up to 44 years:

1. Synergy Oil Field: Phase out all oil wells and pipelines, restore wetlands, establish a public access trail, relocate and convert the existing office building to a visitor center, and establish wetlands mitigation bank.
2. City Property: Phase out all oil wells and pipelines, construct an aboveground pipeline to connect the LCWA site and Pumpkin Patch site and an underground utility corridor.
3. Pumpkin Patch site: Develop a 5,200-square-foot, two-story office building along with 9,750 square feet of storage/warehouse, establish 50 new oil wells and associated storage.
4. LCWA site: Establish 70 new oil wells, associated oil storage tanks, and microgrid integrated energy system.

General Project Components

The Project generally includes various site improvements to each property. All public rights-of-way will be improved to current City standards, including but not limited to sidewalks, bike ways, and undergrounding of eligible utilities. Furthermore, the phasing out of existing oil wells on the Synergy Oil Field, Pumpkin Patch site, and City Property would occur in a phased manner, beginning from the "New Occupancy Date", which is

CHAIR AND PLANNING COMMISSIONERS

November 30, 2017

Page 3 of 8

the issuance of a Certificate of Occupancy for the new office or warehouse on the Pumpkin Patch site. Half of the oil wells would be removed within 20 years of the New Occupancy Date, and all wells removed by 40 years from the New Occupancy Date. Furthermore, if an oil well produces less than one full barrel of oil per day for a period of 18 consecutive months, the well would immediately be plugged and abandoned. All oil wells are abandoned in accordance to the standards set forth by the California Department of Oil, Gas, and Geothermal Resources.

Synergy Oil Field

The Synergy Oil Field is divided into two portions: northern and southern. The northern portion includes wetlands, Steamshovel Slough, tidal channels, and mudflats. There are no active oil wells in the northern portion. The southern portion contains wetlands, an active oil field with 39 wells, and a one-story, wood office building, the Bixby Ranch Field Office, which is located within the Newport-Inglewood Fault zone. The site takes access from 2nd Street via a signalized intersection at Shopkeeper Road.

The northern portion of the Synergy Oil Field would be restored to reestablish historic tidal salt marsh and related habitats. This involves constructing sheet piles and earthen berms to create a southern limit to the area, establish tidal channels, remove berms and roads from non-tidal areas, and lowering the elevation of the northern edge of Steamshovel Slough to create additional high marsh species habitat. The applicant also intends to pursue designation of this northern section as a wetlands mitigation bank and convey the property to the Los Cerritos Wetlands Authority.

Restoration on the southern portion of the Synergy Oil Field would begin immediately. During the first two years, the Project would remove all above ground pipelines and tanks and begin revegetation activities. Then, the existing Bixby Ranch Field Office (Field Office) would be relocated out of the Fault zone to a 1.42-acre previously-disturbed area, approximately 427 feet southwest from its current location. The Field Office is eligible for listing in the California Register of Historic Resources and would undergo exterior renovation and restoration. The Field Office would be converted to a publicly-accessible visitors center, along with a paved parking lot and landscaping. The access point to the site from 2nd Street would be improved.

Along with the establishment of the Visitors Center, a 10-foot-wide, pedestrian-only decomposed granite trail would be constructed, connecting the visitor center parking lot to a wetlands overlook before continuing along the site's eastern boundary (near Studebaker Road) to the Los Cerritos Channel.

City Property

The City Property site is currently accessed from Shopkeeper Road via an existing driveway. Currently, there are 11 active wells on-site and 2 idle wells, for a total of 13 wells. The Project proposes removal of approximately 95 percent of the oil production infrastructure, including aboveground pipelines and tanks, during the first year, with the remaining infrastructure supporting the existing wells until they are phased out.

CHAIR AND PLANNING COMMISSIONERS

November 30, 2017

Page 4 of 8

Construction on the site will involve an approximately 2,200-foot aboveground pipeline system to connect the Pumpkin Patch site to the LCWA site. The pipeline system includes a water injection line, gas line, and various oil lines and would be contained within an earthen berm, approximately 18 inches tall, on both sides. There would also be an underground utility corridor for gas, water, electrical, and communication lines. The applicant already has an existing Surface Use Release and Grant Easement (SURGE) Agreement, which defines the current rights for surface use of the City Property. This SURGE will need to be amended in order to implement the Project.

Pumpkin Patch site

The Pumpkin Patch site is currently accessed from a driveway via the stub of Studebaker Road that is east of Pacific Coast Highway. Development of the Pumpkin Patch site will include street and sidewalk improvements to the Studebaker Road stub, along the property's frontage. Two driveway access points will be created to access the site; the first driveway provides access to the office building and the second is primarily used for the oil production operations. A turnaround will be constructed at the future terminus of Studebaker Road in accordance with City specifications.

The proposed office building on the Pumpkin Patch site is designed with a modern look, with clean lines and substantial glazing. The exterior facade consists of a glass curtain wall with tinted spandrel glass, aluminum sunshades, bronze aluminum framing, and wooden clad eaves to add warmth to the building. The sloping roof element provides shading for the building and establishes character at a gateway location. The roof includes solar panels that generate power for site usage. The warehouse is connected to the office building and will include a painted concrete exterior. The colors used on the exterior are varied, in order to add interest. An 18-foot to 20-foot screen wall along Pacific Coast Highway and the San Gabriel River will minimize the view of oil production equipment. There is a 30-foot landscaped setback between the Pacific Coast Highway right-of-way and the building/wall, allowing for a softened appearance. Landscaping improvements will be incorporated along the base of the building, as well as throughout new parking areas. The site plan includes 37 parking spaces, which satisfies the zoning code parking requirements for the building, along with electric vehicle and accessible spaces. The applicant anticipates a space for a City gateway sign at the southwestern corner of the site, which marks the entrance to the City from Seal Beach.

There is currently one active well on this site. The oil production facilities on the Pumpkin Patch site will include 50 new oil wells contained in a well cellar, water injection and water source wells. These wells would be drilled using a 160-foot-tall drilling rig encased in a sound-attenuated shell. Well drilling would occur over the course of eight years, at which point the drilling rig would be removed. For the duration of the operation, a 120-foot collapsible workover rig will be on site periodically for well maintenance and workover operations.

LCWA Property

Access to the LCWA Property is via a driveway on Studebaker Road, north of the

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intersection of 2nd Street/Westminster Avenue. There are no existing structures on the site. The existing driveway would be relocated slightly north in order to avoid an existing utility pole, and a second driveway would be constructed for right-in/right-out access from Westminster Road. Construction on this site would include 70 new wells, drilled over the course of 14-15 years. Four oil storage tanks (one 28,000 oil barrel tank, one 5,000 barrel water tank, and two 14,000 barrel tanks), ranging from 35 to 50 feet high, would be constructed. Associated equipment would include an elevated pipe rack and three well cellars. Also, a perimeter screen wall and buffer landscaping are proposed.

The primary portion of the energy system microgrid would be constructed on the LCWA site and will connect to the Pumpkin Patch site. The energy system includes a solar photovoltaic system on the Pumpkin Patch site. The main components of the energy system are natural gas turbines located on the LCWA site. The natural gas produced during the oil extraction process powers the facility, producing both electricity and steam for power and heat per the cogeneration design of the system. Until sufficient quantities of natural gas are produced, the project includes an interconnection to Southern California Edison facilities.

Required Entitlements

A Zoning Code Amendment is required to amend SEADIP to allow for the new oil production areas, wetlands restoration program, visitor's center, and clarification of open space requirements for oil production areas. SEADIP anticipated residential and commercial development on wetland areas, and is no longer an accurate reflection of on-the-ground conditions. As such, it is necessary to update SEADIP to eliminate those uses from the wetlands areas, but also accommodate for wetlands restoration over time. The existing oil production areas predated the adoption of SEADIP and were not acknowledged as uses, even though they were legally permitted. As such, these uses will be acknowledged as "existing" in Subareas 33 and 25. Lastly, the once-anticipated extension of Studebaker Road from Pacific Coast Highway has been eliminated from SEADIP and replaced with a possible future connection of Studebaker at Pacific Coast Highway to Shopkeeper Road. These road segments already exist as dedicated rights-of-way, however they cannot be completed until the office development and retail center (Marketplace) rebuilds or substantially reinvests. Because SEADIP is incorporated as part of the City's Local Coastal Program, amendments to SEADIP require a Local Coastal Program Amendment to be certified by the California Coastal Commission. The proposed amendments to SEADIP are included as Exhibit C. A General Plan Consistency analysis for the Zoning Code Amendment can be found in Exhibit D.

Site Plan Review approval is required for commercial buildings of more than 1,000 square feet, industrial projects of more than 5,000 square feet, and projects on City property in the Coastal zone involve more than 500 square feet of land or water. The project must comply with Site Plan Review findings for the construction of the building, warehouse, and associated improvements. These findings are summarized below, and included in further detail in the attached findings (Exhibits E - Findings). The Site Plan Review also includes conditions of approval to ensure that construction and operation of the project progresses in accordance with project-specific and standard requirements. These

conditions are included as Exhibit F – Site Plan Review Conditions of Approval.

The Municipal Code requires a Local Coastal Development Permit (LCDP) for development occurring within the Coastal Zone. In 2014, the City submitted a letter providing, pursuant to Coastal Act Section 30601.3, its consent to the California Coastal Commission assuming responsibility for processing a Consolidated Coastal Development Permit for those areas that are under the Coastal Commission's permitting jurisdiction (the Synergy Oil Field site and City Property site) and those under the City's coastal permitting jurisdiction (the Pumpkin Patch site and the LCWA site). Therefore, an LCDP issued by the City is not applicable.

The City's Oil Map must be amended to add the Pumpkin Patch site and the LCWA Property as oil areas in which oil can be drilled. The Pumpkin Patch site would be added to the current Oil Area 8. The LCWA site is proposed as a new oil drilling Subarea. Chapter 12.08 requires that the Planning Commission forward a recommendation to the City Council on the approval of all new or modified oil drilling areas. The Oil Map Amendment components, including a map of existing Oil Drilling Area 8, legal description of proposed Subarea 8, legal description of the LCWA site, and a map showing the proposed new Oil Areas are included as Exhibit G.

The applicant is requesting a Certificate of Compliance to formally establish the legal description and boundaries of the Synergy Oil Field site. Certificates of Compliance are used to document that parcels created prior to or exempt from the California Subdivision Map Act are found to comply with the City's land use development standards, such as minimum lot size and street access. A Certificate of Compliance is needed for the Synergy Oil Field for future conveyance to the Los Cerritos Wetlands Authority. The Certificate of Compliance is included as Exhibit H.

The project allows for the applicant to consolidate oil operations using more modern and efficient oil production technology and restore the still-intact portions of the historic Los Cerritos Wetlands, complete with public access trail and visitors center. The Project also includes a new office building and warehouse for the Synergy Oil Company that marks a gateway location at the entrance to the City with a new entry monument. Lastly, the project complies with the findings of the Zoning Ordinance. Staff therefore recommends approval of the Zoning Code Amendment, Local Coastal Program Amendment, Site Plan Review, Oil Map Amendment, and Certificate of Compliance, subject to the attached conditions.

PUBLIC HEARING NOTICE

Public hearing notices were distributed on November 16, 2017, in accordance with the requirements of Chapter 21.21 of the Long Beach Municipal Code. At the time of writing of this report, staff has received 19 letters, 17 of which support the project and 2 of which are opposed. All written public testimony received by November 17, 2017 is included in this packet (Exhibit I – Public Comments). Any written testimony received following preparation of this report will be provided to the Planning Commission prior to the hearing.

ENVIRONMENTAL REVIEW

In accordance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, an Initial Study / Notice of Preparation (IS/NOP) was circulated for public review from April 28, 2016 to May 27, 2016. The IS/NOP concluded that the project would potentially have significant impacts to the environment.

A Draft Environmental Impact Report (EIR) (State Clearinghouse Number 2016041083) was prepared for this project. After analysis, the Draft EIR determined that the project would result in less-than-significant impacts for Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Employment, Recreation, Transportation and Traffic, and Utilities and Service Systems. For the topics of Aesthetics, Air Quality (operational), Biological Resources, Cultural Resources, Geology/Seismicity/Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Employment, Public Services, Recreation, Transportation and Traffic, Tribal Cultural Resources, Utilities and Service Systems, and Energy Consumption, the Draft EIR found that mitigation measures would be necessary in order for the project to result in less-than-significant impacts. These mitigation measures are in the Executive Summary of the Draft EIR, as well as included in the Final EIR.

The Draft EIR found that the project's construction activities would have short-term significant and unavoidable impacts to Air Quality in that they would exceed regional significance thresholds for construction related Volatile Organic Compounds (VOC) and Nitrogen Oxide (NO_x) emission. The project is located within the South Coast Air Basin (SCAB), which is currently classified as nonattainment area for ozone (including (or VOC). Cumulative development, consisting of the proposed project along with other reasonably foreseeable future projects, in the SCAB could violate an air quality standard or contribute to an existing or projected air quality violation. Furthermore, based on the South Coast Air Quality Management District's cumulative air quality impact methodology, an individual project resulting in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts (in this case, VOC and NO_x) would result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard.

Implementation of Mitigation Measure AQ-1 would reduce construction-related VOC emissions to a less-than-significant level, but SCAB as a whole continues to be in nonattainment for ozone. Mitigation Measure AQ-2 would reduce construction-related NO_x emissions; however, the NO_x emissions would still exceed the threshold. Since Mitigation Measure AQ-2 requires the use of construction equipment that meets the most stringent emissions standards, there are no feasible measures to reduce the construction NO_x emissions to less than the threshold. For these two reasons, the project's construction impacts to air quality are considered significant and unavoidable. In order to approve a project with significant and unavoidable impacts, the City Council will have to adopt a Statement of Overriding Considerations, which includes findings that the project's benefits outweigh the stated impacts to the environment.

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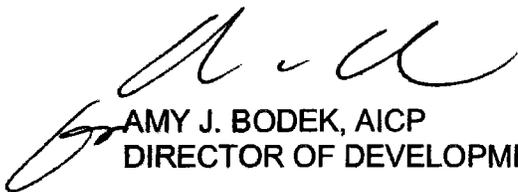
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The Draft Environmental Impact Report circulated for a 45-day public review period between July 24, 2017 and September 6, 2017 (Exhibit J – Draft EIR). Public comments were received during the DEIR public review period from various public agencies, residents, and stakeholders. Responses to these comments were prepared and distributed to the commenters on Friday, November 17, 2017, in accordance with CEQA Guidelines. The responses to the comments, errata to the DEIR, and Mitigation Monitoring and Report Program are included as part of the Final EIR (Exhibit K). The Findings and Statement of Overriding Considerations is included as Exhibit L.

Respectfully submitted,



LINDA F. TATUM, AICP
PLANNING BUREAU MANAGER



AMY J. BODEK, AICP
DIRECTOR OF DEVELOPMENT SERVICES

AJB:LFT:CK:ct

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- Exhibit A – Location Map
- Exhibit B – Plans (Site Plan, Elevations, Landscaping)
- Exhibit C – Proposed Amendments to SEADIP
- Exhibit D – Findings – General Plan Consistency
- Exhibit E – Findings – Site Plan Review
- Exhibit F – Site Plan Review Conditions of Approval
- Exhibit G – Oil Map Amendment and Findings
- Exhibit H – Certificate of Compliance
- Exhibit I – Public Comments
- Exhibit J – Draft Environmental Impact Report (EIR)
- Exhibit K – Final EIR (Response to Comments, Errata, and Mitigation Monitoring and Reporting Program)
- Exhibit L – Findings and Statement of Overriding Considerations

EXHIBIT B



SOURCE: ESRI

**SOUTHEAST AREA DEVELOPMENT AND IMPROVEMENT
PLAN (SEADIP) (PD-1)**

Ordinance History: C-5328, 1977; C-5336, 1977; C-5501, 1979; C-6058, 1984, C-6058, 1987; C-6424, 1987; C-6425, 1987; C-6448, 1987; C-7528, 1998; C-7625, 1999; C-7904, 2004; 06-0001, 2006;

The Southeast Area Development and Improvement Plan provides for a total community of residential, business and light industrial uses integrated by an extensive system of parks, open space, and trails. The residential areas shall be family-oriented; the predominant type shall be sales units, although provision is also made for moderately priced apartments as well as luxury condominium units. In reviewing and approving site plans and tract maps for the development of the areas within the City of Long Beach, the City Planning Commission shall be guided by the goals and policies of the Specific Plan and the Commission shall not permit variance from those standards unless it finds that such variance meets the intent of the original standards and is consistent with the overall goals and objectives of the adopted Specific Plan.

A. PROVISIONS APPLYING TO ALL AREAS

1. Homes and offices shall be oriented toward open space, green belts and water wherever possible. Vehicular access shall generally be provided from the side opposite these natural amenities.
2. Areas, which are designated for single-family detached dwellings, shall be developed in accordance with R-1-N standards. However, if the area is to be re-subdivided, lot size and lot width and setback may be reduced provided that adequate common open space and guest parking are provided, and that the design is consistent with the adjacent residential development.
3. Prior to issuance of a building permit, all infrastructure, including street improvements, fire hydrants, water lines, storm drains, and sanitary sewers shall be constructed on a block basis in accordance with the approved plans. Such improvements, including engineering plans, shall be financed by subdivider(s) or by an assessment district or both.
4. A minimum of thirty percent of the site shall be developed and maintained as usable open space (building footprint, streets, parking areas and sidewalks adjacent to streets shall not be considered usable open space) except in oil production areas where public safety and operational concerns require limiting access. Bicycle and pedestrian trails not included within the public right-of-way may be considered usable open space). All buildings shall be set back a minimum of twenty feet from all public streets and a wider setback may be required by individual subarea. Within this minimum twenty-foot setback area, a strip having a minimum width of ten feet and abutting the street shall be attractively landscaped.
5. The maximum height of buildings shall be 30 feet for residential and 35 feet for non-residential uses, unless otherwise provided herein.
6. Minimum parking for each residential unit shall be the same as required Citywide by the zoning regulations; except that, in that part of SEADIP within the coastal zone, coastal zone standards shall apply. Minimum parking for commercial and industrial uses shall be provided in accordance with parking standards as specified in the zoning regulations.

7. Navigable waterways shall not be extended unless it can be demonstrated that such extension will not have an adverse impact on water quality and boat traffic.
8. All developments shall be open and inviting to the public except in industrial and oil production areas where public safety concerns require limiting access. Specifically, the public shall not be excluded from use of private streets and bicycle and pedestrian trails, although the public may be excluded from private yard areas, from private recreation areas designed for the use of residents of the development, and from private drives serving parking lots and garage structures reserved for residents and their guests.
9. All development shall be designed and constructed to be in harmony with the character and quality of surrounding development so as to create community unity within the entire area.
10. Developers shall construct public open space, trails, pathways and bicycle trails for each development in such a manner that they will be generally accessible to the public and that they will interconnect with similar facilities in adjacent developments so as to form an integrated system of open space and trails connecting major points of destination.
11. Public access shall be provided to and along the boundaries of all public waterways as provided for in the wetlands restoration plan.
12. Public views to water areas and public open spaces shall be maintained and enhanced to the maximum extent possible, consistent with the wetlands restoration plan.
13. Adequate landscaping and required irrigation shall be provided to create a park-like setting for the entire area. A landscaped parkway area shall be provided along all developments fronting on Pacific Coast Highway, ~~Westminster Avenue~~2nd Street, Studebaker Road, Seventh Street and Loynes Drive.
14. No additional curb cuts shall be permitted on Pacific Coast Highway, ~~Westminster Avenue~~2nd Street, Studebaker Road, or Seventh Street, unless it can be shown that inadequate access exists from local streets, or unless specifically permitted by Subarea regulations provided herein. This restriction shall not preclude the provision of emergency access from these streets as may be required by the City.
15. All utility lines shall be placed underground and utility easements shall be provided as required unless waived by the Commission on the advice of the Director of Public Works.
16. Developers shall construct, in accordance with plans approved by the Director of Public Works, all necessary sanitary sewers to connect with existing public sewers, and shall provide easements to permit continued maintenance of these sewers by the City where the City accepts responsibility for such maintenance.
17. Developers shall construct, in accordance with plans approved by the Director of Public Works, all new streets and ways within the area. All streets and ways will include:
 - a. Roadway pavement, curbs and sidewalks approved by the Director of Public Works. The sidewalk requirement may be waived or the sidewalk may be combined with an enlarged bicycle trail in such cases where the Commission and the Director of Public Works determine that an independent sidewalk is not required for pedestrian convenience and safety.
 - b. Water lines approved by the General Manager of the Water Department.

- c. Fire hydrants approved by the Fire Chief and the General Manager of the Water Department.
 - d. Street lighting using low energy luminaries as approved by the Director of Public Works.
 - e. Storm drainage approved by the Director of Public Works.
 - f. Street trees approved by the Manager of the Park Bureau.
 - g. Street signs and pavement traffic markings approved by the Director of Public Works.
 - h. All traffic control devices required by the Director of Public Works.
18. Developers shall improve and dedicate to the City certain streets, recreation areas and other public facilities necessary to support the proposed private development, as specified by area in subsequent paragraphs. If any such required improvements are found by the Commission to be infeasible or undesirable for engineering, legal or other reasons, the Commission may accept alternative improvements proposed by the developer so long as they meet the intent of the original requirements and are consistent with the overall goals and objectives of the adopted Specific Plan. Developers shall make such improvements or furnish security in connection with such improvements prior to commencement of construction of adjacent areas, which the improvements are designed to support; improvements may be phased with the phased construction of such adjacent areas. In those cases where the developer is to dedicate land area for subsequent improvement by the City, the developer shall not be required to convey such area until the City has budgeted funds for the improvements.
19. Developers shall make provision for the continued private maintenance of all common areas that are not to be dedicated and accepted by the City, and of all ways not to be dedicated and accepted by the City, including maintenance of street lighting, walks, curbs, storm drainage, water lines, fire hydrants, and street trees. Such provisions shall be perpetuated by their inclusion in the covenants, conditions, and restrictions of the property owners.

B. RESPONSIBILITY FOR CONSTRUCTION AND MAINTENANCE OF WETLANDS AND BUFFERS

The Wetlands

1. The wetlands and associated habitats, and all fresh, brackish and tidal water supply and control systems in ~~Areas 11a, 23 and 33,~~ shall be constructed as described in the provisions for Subareas 11a, 25, and 33. at the expense of the developers of Areas 11a, 25 and 26, unless otherwise provided for by agreements between land owners and the managing agency. The developer(s) of commercial uses on of SubaAreas 11a and 25 shall be responsible for wetlands development of SubaAreas 23 and 33, respectively. The developer(s) of Area 26 shall be responsible for wetlands development of Area 27.
2. Owing to the need to make connections with the existing tidal marsh, the major wetlands restoration project between Los Cerritos Channel and ~~Westminster Boulevard~~2nd Street shall be accomplished in accordance with a wetlands restoration plan approved by the City and State and federal resource agencies. ~~at one time.~~ Restoration of wetlands north of the Los Cerritos Channel and south of the San Gabriel River need not be accomplished concurrently with the major restoration project, or with each other.

~~however, prior to the issuance of permits for residential or commercial or industrial development in Areas 25 and/or 26, each applicant shall develop a detailed phasing plan that assures that restoration of wetlands in Areas 23 and 27 north of the Los Cerritos Channel and south of the San Gabriel River will be completed prior to or concurrently with the completion of urban development on related parcels as specified above. Said detailed phasing plans shall be submitted for approval to the agency responsible for granting the coastal permit.~~

3. ~~The standard of wetlands restoration for Area 11a and 33 is that it shall be completed pursuant to a wetlands restoration plan approved by the City, and State and federal resource agencies. The approved wetlands restoration plan shall include a description of the habitats to be restored, and a phasing plan for implementation, wetlands north of the Los Cerritos Channel and south of the San Gabriel River. Prior to or concurrently with upland development on related areas. This standard of wetlands restoration for Areas 23 and 27 wetlands north of the Los Cerritos Channel and south of the San Gabriel River may be satisfied by using one of the following options:~~

- a. ~~Percentage Option. Whenever part of the development acreage is built upon, an equal percentage of the future wetland acreage will be developed as wetlands; and~~
- b. ~~Acre-for-Acre Option. For every acre of wetland identified for fill and/or consolidation under the Local Coastal Plan that will be covered by the development, the developer shall improve one acre of wetland.~~

4. ~~Exceptions to this standard may arise in Areas 25, 26 and 27 where continuing oil operations and/or leasing problems may make it impossible to fulfill part of a permanent wetlands obligation in connection with upland developments. In such instances (and only in such instances), the following method of fulfilling the wetland obligation may be utilized.~~

- a. ~~The developer must first develop wetlands on all areas designated for wetlands, which are not encumbered, by active oil operations and/or leases.~~
- b. ~~If the full wetlands obligation is not satisfied thereby, the remainder of this obligation may be fulfilled by construction of interim wetland areas as a temporary wetlands restoration measure. If such an interim restoration alternative is needed, an interim wetlands restoration program may be developed for up to 8 acres of the total wetlands obligation for development of Parcel 26, and restoration of areas of Subareas 11a, 25, and 33 which are not encumbered by active oil operations or oil leases up to 8 acres for development of Parcel 25, where continuing oil operations and/or leasing problems may interfere with the total restoration program as set forth in the Wetlands Enhancement Plan. Such a program shall be subject to review and approval by the Executive Director of the California Coastal Commission in consultation with the Department of Fish and Game.~~

~~This alternate interim wetlands restoration program, limited for up to 16 acres total, shall at minimum, include provisions that:~~

- (1) ~~Identify location and size of affected developable areas and proposed interim wetland areas, and provide for the construction of interim wetlands equal in productivity and size to areas filled. They shall be maintained for wildlife by the developer until such time as the major restoration program can be accommodated on encumbered lands.~~

- (2) Provide for a monitoring system undertaken in conjunction with Department of Fish and WildlifeGame, assuring biological values of the interim wetlands.
 - (3) Where legally possible, place deed restrictions over the interim wetlands prohibiting development in such areas until the implementation of the primary restoration program.
 - (4) Provide for the construction of the interim wetlands prior to or concurrently with the development of wetland areas of Areas 25 and 26 that cannot be directly mitigated by the acre-for-acre restoration option set forth in the land use plan.
 - (5) Insure that interim wetlands are to be viewed as temporary and shall not in any way be construed to increase the total wetland obligation within the study area. These areas may be converted to upland areas for development purposes upon completion of the primary restoration project.
 - (6) When sufficient on-site acreage is not available, use of off-site acreage within the San Gabriel River Wetlands system may be permitted for interim wetlands, with such location of off-site interim wetlands being subject to the approval of the Executive Director of the California Coastal Commission in consultation with the Department of Fish and WildlifeGame.
- =
5. If an owner/developer elects to utilize the temporary wetlands option to obtain permits and proceed with development, it is necessary to provide a mechanism, which will assure that monies for future construction of permanent wetlands to replace the temporary wetlands will be available when such permanent construction is imminent. This is particularly important in view of the fact that many years may separate the construction of the temporary and permanent wetlands, and that during that span of time, title may change several times and the obligation for permanent wetlands construction may become clouded or lost. Therefore, when an owner/developer utilizes the temporary wetlands option (in the limited circumstances described in #4 above), he/she must deposit monies in a Wetlands Restoration Fund, under the terms described below, (or provide other means to guarantee development of the permanent wetlands):
 - a. The construction assurance funds shall be deposited at the time the developer applies for construction permits for a temporary wetlands program;
 - b. The amount of the funds to be deposited shall be derived from the cost estimate referred to in Item 5c, below;
 - c. The first developer shall be responsible for the preparation of construction drawings, specifications, and cost estimates for the total wetland plan in his area. Such cost estimates shall include a contingency factor, which is normal and customary in projects of this magnitude and complexity. These shall be approved by the engineer of the local jurisdiction in consultation with the Department of Fish and WildlifeGame;
 - d. The Wetlands Restoration Fund shall be established by the City of Long Beach when the first assurance payment is imminent. The fund shall be established in

an interest-bearing account. Interest shall accrue to the account. As much as possible, the account shall be managed to earn sufficient annual interest to match the annual increases in the Consumer Price Index for Southern California.

Monies shall be withdrawn from the fund to pay for the construction of permanent wetlands deferred through use of the temporary option. Any monies remaining in the fund, including interest, after all wetlands are totally restored, shall be utilized for on-going maintenance of the wetlands.

When an agency or non-profit corporation accepts permanent management responsibilities of the wetlands, the Fund may be transferred to that agency or corporation.

- e. Wetlands in those areas for which assurance funds were deposited shall be developed at the first available opportunity. When an agency or non-profit corporation accepts permanent management responsibilities of the wetlands, the Fund may be transferred to that agency or corporation.
6. Overall custodial and interpretive management and financial responsibility for maintenance of Los Cerritos Wetlands shall be vested in an appropriate governmental agency or private non-profit corporation upon the initiation of the first wetlands restoration project such as the Los Cerritos Wetlands Authority.— Prior to issuance of any permits for any projects related to wetlands restoration, construction, nomination of the managing agency shall be made by the City of Long Beach with the concurrence of the State Department of Fish and Wildlife and California Coastal Commission. ~~Game.~~

The Buffers

1. The wetlands are to be separated from urban developments by "buffers" In the context of this LCP, the buffers are treated as a part of the adjacent urban developments, as they will form a part of the amenities. Construction and maintenance of the buffers, therefore, falls entirely on the developers and their successors in interest. The reader should note that buffers are constructed only north of Westminster Boulevard 2nd Street. The restored wetlands south of Westminster Boulevard 2nd Street will have no buffers, owing to the fact that they will be separated from other uses by natural barriers.
- ~~2. As part of any wetlands restoration activity, B~~ buffers between subareas 11a and 33 ~~(or wetlands and non-wetlands areas) and development shall be created, in accordance with an approved wetlands restoration plan. If build-out is phased over a period longer than two years, then the landscaping and irrigation system for the buffer can be phased with each phase of landscaping for the development with this exception; that at the beginning of each phase, prior to finish grading for that phase, a row of shrubs shall be planted at the top of the berm to offer protection during construction. Provisions must be made to deny public access to all portions of areas not included in the current building program. Design of the buffers must conform to the standards set forth in the certified Local Coastal Plan for the Los Cerritos Wetlands.~~
- ~~3-2.~~ If urban developments remain the property of landowners and/or developers, they shall be responsible for continuous maintenance of the buffers. This responsibility shall run with the land. If urban developments become condominiums, the buffers shall become a part of the area held in common, and continuous maintenance shall be the responsibility of the property owner's association(s). The agency in charge of the management of the restored wetlands may provide comments and recommendations to those responsible for maintenance of the buffers if lack of proper maintenance is causing the buffers to fail in their primary mission to prevent visual and physical access to the wetlands habitats. Breaches in the buffer which seriously threaten habitat values in the wetlands, and which

have been reported by the wetlands management agency and have not been repaired in a timely fashion by the individual or agency responsible for maintenance, may be repaired by the wetlands management agency. Costs for such repairs shall be collected from the property owner's association.

- 4.3. Where property owners' associations are formed, the requirement for continuous buffer maintenance shall be included in their Articles of Incorporation, and monthly dues shall be sufficient for this purpose.
- 5.4. The primary mission of the buffer is to prevent physical access into the wetlands and to prevent visual disturbances of wetland wildlife. The buffer, as shown in the Local Coastal Plan, consists of a berm of mounded soil, a fence, and plant material. Plant material will be chosen to be (in descending order of priority):
- a. of a growth form that supports the primary mission (i.e., of assistance in preventing access and/or screening development from the wetlands);
 - b. compatible with soil, water and climate conditions of the immediate site;
 - c. fast growing;
 - d. compatible with adjacent development;
 - e. low maintenance; and
 - f. of wildlife food and/or cover value.

C. SPECIFIC DEVELOPMENT AND USE STANDARDS

SUBAREA 1

- a. Use: Residential.
- b. Maximum Density: 9.5 dwelling units/gross acre.
- c. Planning or Coastal Commission may require such additional parking (over and above the minimum of two integral spaces) as it determines to be necessary for guests and for storage of boats and recreational vehicles.
- d. The site plan should provide for views of Marine Stadium from Appian Way; a minimum of 20 percent of the property frontage along Appian Way shall be left open to Marine Stadium.
- e. Developers shall construct, in accordance with plans approved by the Director of Public Works, Paoli Way from its present terminus to the proposed public park in Area 32 and dedicate the same to the City.
- f. Vehicular access shall be limited to no more than two points from Appian Way if the area is developed as a single entity, or to no more than three points if the area is developed as two separate parcels.

SUBAREA 2 (a)

- a. Use: Residential.

- b. This area is fully developed in accordance with Special Use Permit S-90-72 and Subdivision Tract No. 30643.

SUBAREA 2 (b)

- a. Use: Residential.
- b. Maximum density: 8.4 dwelling units/gross acre (number of permitted units to be calculated on the basis of gross area, including any land area to be dedicated to the City as public park).
- c. Convenient public street access shall be provided through the site in accordance with the adopted Specific Plan, and to Marine Stadium and the public park proposed for Area 31.
- d. Developers shall construct, in accordance with plans approved by the Director of Public Works, bicycle and pedestrian trails along abutting waterways and connecting the proposed trails on Loynes Drive extension to the proposed park in Area 32.

SUBAREA 3 (a)

- a. Use: Residential.
- b. This area shall be developed with single-family detached dwellings at a maximum density of 8.4 dwelling units per gross acre.
- c. If feasible, Manila Avenue south of Colorado Street may be vacated and merged into adjacent property for development. No vehicular access to Bellflower Boulevard shall be permitted.
- d. If vacation of Manila Avenue is not feasible, Manila Avenue shall be developed as a service road with a ten-foot landscaping buffer parallel to Bellflower Boulevard.

SUBAREA 3 (b)

- a. Use: Residential
- b. This area shall be developed with single-family detached dwellings.

SUBAREA 4 (a)

- a. Use: Residential and Park (Sims Pond)
- b. Maximum density: 6.0 dwelling units/gross acre.
- c. This area shall be developed with single-family detached dwellings in accordance with Subdivision Tract 32868 (S-64-76).
- d. The developer shall construct, in accordance with specifications listed in the Director of Public Works' report on Tentative Tract 32868, an extension of Bellflower Boulevard from Colorado Street to Loynes Drive and an extension of Loynes Drive from street improvements made in Area 4 (b) and shall be

reconstructed in accordance with plans approved by the Director of Public Works.

SUBAREA 4 (b)

- a. Use: Residential.
- b. Maximum density: 4.1 dwelling units/gross acre.
- c. This area shall be developed with single-family detached dwellings in accordance with the approved Tentative Tract Map No. 32277 (S-55-74).
- d. The developer shall construct, in accordance with plans approved by the Director of Public Works, and extension of Loynes Drive and parallel bikeway from Pacific Coast Highway westerly across the developers' lands to the extension of Bellflower-Loynes roadways built in connection with the development of Area 4 (a) -- Tentative Tract 32868, and dedicate the same to the City.
- e. The developer shall construct, in accordance with plans approved by the Director of Public Works, necessary public access to the proposed public park in Area 31, and dedicate the same to the City.
- f. The natural wetland known as Sims Pond shall be preserved and maintained in accordance with the requirements of the California Department of Fish and Game.

SUBAREA 5 (a)

- a. Use: Residential.
- b. This area is fully developed in accordance with Special Use Permit No. S-37-69 and the approved Subdivision Tract No. 30911.

SUBAREA 5 (b)

- a. If this area remains in the ownership of the California Department of Transportation, it should be improved as landscaped open space. If sold, it shall be developed at a maximum density of 2.5 dwelling units per acre, and church uses may also be permitted.
- b. No direct access to this site shall be permitted from Pacific Coast Highway.

SUBAREA 6 (a)

- a. Use: Residential.
- b. This area is fully developed in accordance with Subdivision Tract No. 4681.

SUBAREA 6 (b)

- a. Use: Residential.
- b. Maximum density: 18.0 dwelling units/gross acre.

- c. Every effort shall be made to construct apartment units that can be priced so as to serve families of moderate income.

SUBAREAS 6 (c), 7 (a), 21 and 22 (b)

- a. Use: Residential.
- b. Maximum density: 5.62 dwelling units/gross acre.
- c. A variety of housing types and densities is encouraged, with higher density apartments oriented toward the golf course in Areas 7 (a) and 21.
- d. No more than three dwelling units shall be provided in any one structure in Areas 7 (a) and 21.
- e. A golf course open to the general public shall be constructed on Area 22 (b).
- f. No additional street access to Seventh Street shall be permitted.
- g. The developer shall construct, in accordance with plans approved by the Director of Public Works, a new street connecting Loynes Drive and Channel Drive, and a street connecting said new street to Margo Avenue in the vicinity of Sixth Street, and dedicate the same to the City.
- h. The developer shall construct, in accordance with plans approved by the Director of Public Works, a bicycle trail generally parallel to the new street connecting Loynes Drive and Channel Drive, and dedicate the same to the City. This trail will include a segment along Loynes Drive to connect with existing Vista Street, and a spur connection to Seventh Street opposite West Campus Drive.
- i. The developer shall construct a widening of Pacific Coast Highway in accordance with a plan prepared by the Director of Public Works, which calls for an eight-lane, divided highway with sidewalks and bike trails, and dedicate the same to the City.

SUBAREA 7 (a)

- a. Use: Residential
- b. Maximum density: 5.0 dwelling units/gross acre.
- c. This area shall be developed with single-family detached dwellings.

SUBAREA 8

- a. Use: Residential
- b. Maximum density: 15.6 dwelling units/gross acre
- c. Structures should be designed and located in such a manner as to minimize the obstruction of views from the adjacent Bixby Hill Community
- d. Only one point of access to Seventh Street shall be permitted, preferably via East Campus Drive. If the developer is unable to obtain permission from California State University to utilize East Campus Drive, access to Seventh Street may be

provided via an extension of Pepper Tree Lane. This requirement shall not preclude the provision of a second emergency access as may be required by the City.

- e. The developer shall construct and dedicate a widening of Seventh Street in accordance with a plan prepared by the Director of Public Works to provide for a six-lane highway with curb, sidewalks, and bicycle trail.
- f. The developer shall construct, in accordance with plans approved by the Director of Public Works, an underpass of Seventh Street at the Los Cerritos Channel to provide for pedestrian and bicycle circulation between the residential developments and nearby public schools.
- g. The developer shall construct, in accordance with plans approved by the Director of Public Works, a bridge over Bouton Creek at the Los Cerritos Channel to provide for bicycle and pedestrian circulation from residential developments to the Hill Jr. High School.

SUBAREA 9

- a. Use: Residential
- b. This area is fully developed in accordance with Special Permit No. S-158-62 and subdivision Tract No.'s 24883 and 22087.

SUBAREA 10 (a)

- a. Use: Residential
- b. This area is fully developed in accordance with Special Permit No. S-174-60.

SUBAREA 10 (b)

- a. Use: Residential
- b. Maximum density: 11.7 dwelling units/gross acre.
- c. Structures should be designed and located in such a manner as to not obstruct views from the Belmont Shore Mobile Estates Park, Area 10 (a). No more than 1/3 of the dwelling units should be located in the narrow eastern section of the site along the Los Cerritos Channel.
- d. A bicycle and pedestrian trail shall be provided through the site from Loynes Drive to the proposed public park in Area 23.

SUBAREA 11 (a)

- a. ~~Use: Residential~~ Commercial; wetlands and open space; existing oil production operations; recreation; accessory uses including visitors' centers or similar facility.
- a.b. ~~Commercial uses shall be developed-~~ in accordance with the development standards set forth in Long Beach Municipal Code Section 21.32.
- b. ~~Maximum density: Approximately 15.3 units per acre, 764 units.~~

- ~~c. Unit configuration shall be stacked flats and townhouses.~~
- ~~d. Height: Three stories up to thirty feet.~~
- ~~e. Length: Maximum building length for any residential structure shall be 180 feet.~~
- c. Wetlands shall be restored pursuant to one of two means:
 - (1) A wetlands restoration plan that is intended to support creation and operation of a wetlands mitigation bank that is approved by State and federal resource agencies, including but not limited to the U.S. Army Corps of Engineers and the California Coastal Commission; or
 - (2) A wetlands restoration plan that is approved by State and federal resource agencies, including the U.S. Army Corps of Engineers and the California Coastal Commission, and implemented upon cessation of oil operations.
- ~~f. The exterior of buildings shall appear as single-family dwellings or townhouses. No more than two upper story units shall share a common stairway from the ground level and no exterior corridors shall be allowed. To the maximum extent feasible, each unit shall have its own physical identity.~~
- d. Passive recreation uses may be permitted, including trails.
- e. The existing Bixby Ranch building shall be used to support the oil production operations. At such time the building is no longer used for oil production operations, the building may be used to support passive recreation uses, including use as a visitor's center.
- ~~g. All building facades shall contain windows and/or variations in building materials to provide visual interest. Building details such as window and door framing, shutters, window boxes, decorative eave treatments and the like are encouraged.~~
- ~~h. All building bordering on Pacific Coast Highway, Westminster Boulevard, and Studebaker Road shall, to the maximum extent possible, present a side elevation instead of a front or rear elevation to those roads.~~
- i.f. To ensure that area 11-(a) is open and inviting to the public as far as is consistent with the preservation of the wetlands and continuing oil production operations, with the noise and security problems resulting from the bordering major highways, the following special design features shall apply:
 - (1) One pedestrian path and one bicycle trail entrance shall be placed along Studebaker Road and Westminster Boulevard 2nd Street connecting pedestrian paths and bicycle ways along these highways to the interior trail system. Design treatment of such connections shall ensure that they are visually prominent and open to the public.
 - (2) The vehicular entrances at Westminster Boulevard 2nd Street shall provide an open view to wetlands.
 - (3) A visitor parking lot shall be provided adjacent to the Bixby Ranch office building for use by the public prior to commencement of building operations.

- ~~j. — The edges along Studebaker Road, Pacific Coast Highway and Westminster Boulevard shall be improved with landscaped berm setbacks. The visibility of any fences behind the berms shall be minimized by the height of the berm and may also be minimized by dense planting of shrubs. Trees planted in this setback may be evergreen with dense foliage.~~
- ~~k. — A suitable buffer shall be provided along the eastern border of the site to screen the residents from the steam-generating plant located east of Studebaker Road.~~
- ~~l. — A buffer, a minimum of 25 feet in width, between the trail edge and the wetland edge, shall be provided. That buffer width may be modified to provide a greater buffer in areas of the wetland closer to the inter-tidal channels. Use of a variable buffer is encouraged to provide for meandering of the trail in order to decrease overall impact and enhance the attractiveness of the trail. Along the approximately 500 ft. linear edge of the wetland identified as more sensitive where the Conservancy proposes a variable buffer, that buffer shall be appropriate provided that the distance between the wetland and the edge of patios averages 63 feet. (The buffer width may be decreased to a minimum of 25 feet if the inter-tidal channels can be redesigned to occur deeper into the wetlands and farther away from developments).~~
- ~~m.g. — In addition to the setback for buffer, the elevation and setbacks between development a occupiable structure and wetland edge shall be sufficient to ensure stability during liquefaction events caused by the maximum credible earthquake. Such data, including review by the State Division of Mines and Geology, shall be provided at time of site plan approval for any development in this subarea.~~
 - ~~(a) — The developer shall construct, in accordance with plans approved by the Director of Public Works, an extension of Shopkeeper Drive North from Westminster Avenue to the public marsh and recreation area, and dedicate the same to the City.~~
 - ~~(b) — The developer shall provide for the extension of the non-wetlands habitat corridor from Westminster Boulevard to the wetlands of Area 33. Such corridor shall be 400 feet wide approximately centered on the extension of Shopkeeper Drive. No building shall be allowed in this area except for a single story recreation building, or as otherwise provided for herein.~~
 - ~~(c) — The developer shall construct, in accordance with plans approved by the Director of Public Works, a new spine road from Shopkeeper Drive extension westward to area 11 (b) and eastward to the intersection with the most northerly cul-de-sac, and dedicate the same to the local jurisdiction.~~
 - ~~(d) — The developer shall construct a widening of Pacific Coast Highway, in accordance with plans prepared by the Director of Public Works, which call for an eight-lane divided highway with sidewalks, and dedicate the same to the City.~~
 - ~~(e) — The developer shall construct and dedicate to the City, a bicycle lane within the roadway, in accordance with plans approved by the Director of Public Works, from Westminster Boulevard parallel to extended Shopkeeper Drive, where it will split into a westward lane of the local residential road toward area 11 (b)~~

~~and into an eastward and northward lane along the local residential road to the west side of Studebaker Road. From that intersection with Studebaker Road, the trail shall continue north on Studebaker Road to Loynes Drive where it will be extended westerly to connect to the trail along the west bank of the Los Cerritos Channel.~~

SUBAREA 11 (b)

- a. Use: Residential at a maximum density of 8.4 units per gross acre shall be permitted.
- b. No more than three dwelling units shall be provided in any one structure, and all shall be designed as sales units. Height limit is two stories in 30 ft. maximum.
- ~~c. Permanent vehicular access to this site shall be provided through Area 11 (a). Until Area 11 (a) is developed, access may be provided on a temporary basis from Pacific Coast Highway.~~
- ~~d-c.~~ The developer shall construct in accordance with plans approved by the Director of Public Works, a pedestrian walkway adjacent to Los Cerritos Channel connecting with a pedestrian walkway to be constructed by the developer of Parcel 11 (a) adjacent to Parcel 33, at one end, and at the other end, connecting with either a pedestrian/bikeway along Pacific Coast Highway, or, at the discretion of the Director of Public Works, with the walkway adjacent to the bulkhead in the southeast portion of Parcel 31.
- ~~e-d.~~ Prior to development, the final details concerning wetlands consolidation on this Parcel shall be approved by the Department of Fish and Game.

SUBAREA 12

- a. Use: Residential
- b. This area is fully developed in accordance with Special Use Permit S-140-72 and the approved Subdivision Tract No's. 31204, 31203, 31205, and 29312.

SUBAREA 13

- a. Use: Commercial
- b. This area is fully developed in accordance with Special Use Permit S-44-73.

SUBAREA 14

- a. This area, in the ownership of the California Department of Transportation, should be improved as landscaped open space. If the northwest quadrant is sold, it shall be developed with a maximum of 3.0 dwelling units/gross acre. Access to this property from Seventh Street shall be permitted only through Area 8 or via an extension of Pepper Tree Lane.

SUBAREA 15

- a. Use: Commercial.

- b. This area is fully developed in accordance with Special Use Permit No's S-174-60, S-5-60, S-180-72, and S-178-69.

SUBAREA 16

- a. Use: Commercial
- b. This area is fully developed in accordance with Special Use Permit No's. S-167-72 and S-13-61.

SUBAREA 17

- a. Use: Commercial
- b. This area is fully developed in accordance with the CR zone.

SUBAREA 18

- a. Use: Commercial
- b. This area is fully developed in accordance with Special Use Permit No. S-29-75. Also see Area 26.

SUBAREA 19

- a. Use: Industrial, Oil Production Uses
- b. This area is fully developed in accordance with the provisions of the MG zone.
- c. Commercial storage/self-storage (21.15.570) shall be allowed by Conditional Use Permit (21.52.219.5).
- e.d.

SUBAREA 20

Use: Channel View Park, a public park.

SUBAREA 21

See Area 6 (c).

SUBAREA 22 (a)

- a. Use: Residential
- b. Maximum density: 8.0 dwelling units/gross acre.
- c. Site plan should provide for views of the proposed golf course on Area 22 (b) from Loynes Drive; a minimum of 20 percent of the property frontage along Loynes Drive shall be left open to the golf course.
- d. No vehicular access shall be provided to Pacific Coast Highway, and no more than two access points to Loynes Drive shall be provided.

- e. The developer shall construct, in accordance with plans approved by the Director of Public Works, a bikeway along the Loynes Drive frontage of his property, and dedicate the same to the City.
- f. The developer shall construct a widening of Pacific Coast Highway in accordance with a plan prepared by the Director of Public works, which calls for an eight lane divided highway with sidewalks, and dedicate the same to the City.
- g. The developer shall cooperate with the Director of Public Works and with the adjacent property owner of Area 22 (b) to provide for the design and construction of a small portion of the new roadway between Loynes Drive and Channel Drive through the eastern portion of Area 22 (a).

SUBAREA 22 (b)

See Area 6 (c).

SUBAREA 23

- a. The two wetland concepts generally outlined shall include a 8.3 acre brackish pond on Area 23 provided that the Executive Director of the California Coastal Commission determines (i) in addition to the setback for buffer, the elevation and setbacks between development and wetland edge shall be sufficient to ensure stability during liquefaction events caused by the maximum credible earthquake; (ii) that the location and operation of the proposed wetland are acceptable to the Regional Water Quality Control Board, the State Department of Health and to the Local Mosquito Abatement District.
- b. If approval from these agencies results in reductions to the net size of the proposed wetland, restoration at this site shall only occur if the remaining area is sufficient to create a wetland at least the same size as the existing brackish pond at the Marketplace.

SUBAREA 24

- a. This designation actually applies to two distinct parcels of land, one at the southwest corner of Loynes Drive and Studebaker Road (called herein "24 South"), and the other across Loynes Drive at the northwest corner (called herein "24 North").
- b. Area 24 South is to be developed as an overlook area and interpretive center for the bordering marsh. The developer of Subarea 11 (a) shall dedicate Parcel 24 South to the State of California or other agency responsible for management of Area 33.
- c. Area 24 North shall be dedicated to the City of Long Beach for park and playground purposes.
- d. The owner of Area 24 shall dedicate area along Studebaker Road for the bicycle trail to be built along Studebaker Road.

SUBAREAS 25 and 26

- a. Use: (Area 25) Business Park (Office Commercial and light Industrial); restaurants and hotel; ~~oil production and accessory uses.~~ Commercial / Self-storage (defined by 21.15.570) is a prohibited land use.
- b. Use: (Area 26) Business Park (Office Commercial and Light Industrial). Commercial / Self-storage (defined by 21.15.570) is a prohibited land use.
- c. ~~The City Planning Commission shall approve development of specific~~ These Subareas are intended for office commercial, and light industrial, and oil production uses, which will provide mitigation to address project-related noise, odor, or air emissions through compliance with the California Environmental Quality Act. . ~~pollutants beyond the boundaries of their parcels.~~
- d. The ~~Planning~~ Commission may adopt specific performance standards or a specific list of permitted uses to guide developers and the ~~Planning~~ Commission.
- e. No outdoor storage of materials and equipment shall be permitted ~~without being screened from public view.~~ Loading and service areas shall not be permitted within required yard setback areas and all such loading and service areas shall be enclosed or screened so as not to be visible from the street.
- f. No more than 40,000 square feet of floor area for medical/dental offices, and no more than 16,000-20,000 square feet of floor area shall be restaurant use.
- g. ~~The B~~business park uses shall be predominantly office commercial uses, and no less than 75 percent of the area ~~proposed for business park uses~~ shall be devoted to office commercial use. ~~No light industrial uses shall front on Pacific Coast Highway or Westminster Avenue.~~
- h.g. ~~For new commercial uses, n~~Not more than 35 percent of the area of each office commercial lot shall be occupied by a building or buildings, ~~and not more than 50 percent of the area of each light industrial use shall be occupied by a building or buildings.~~
- i.h. ~~For new commercial development, a~~All improved building sites shall have a minimum landscaped coverage of 15 percent of the area of each lot and shall be provided with an irrigation system. Boundary landscaping shall be provided on all internal property lines. Parking areas shall be landscaped with a minimum of one tree per each five parking stalls. The proposed retention basin in Area 25, ~~if constructed,~~ shall be developed in a park-like manner.
- i. Required yard areas: Thirty feet front; ten feet side (except 30 feet side when a side yard abuts ~~Pacific Coast Highway or Westminster a~~ street and except that the internal side yard may be 0 feet provided the main building on the same lot line on the abutting lot is set back 0 feet and both lots are developed at the same time).
- j. A 30 foot--wide landscaped setback shall also be required along the San Gabriel River Channel property line to create a park-like setting for the bicycle trail along the river bank. (This substitutes for the park in the former Area 30).
- k. One access from ~~Westminster Avenue~~ 2nd Street shall be allowed to Area 26; no addition curb cuts shall be permitted on ~~Westminster Avenue~~ 2nd Street or Pacific

Coast Highway. All other vehicular access shall be from Studebaker Road or Shopkeeper Drive.

- l. The developer(s) of Area 25 shall contribute on a fair share basis to the construct a widening of Pacific Coast Highway in accordance with a plan approved by the Director of Public Works, an extension of Studebaker Road in accordance with a plan approved by the City, and dedicate the same to the City.
- m. The developer of Area 25 shall construct, in accordance with plans approved by the Director of Public Works, a bicycle trail along the south side of ~~Westminster Avenue~~ 2nd Street and along the north side of Pacific Coast Highway, south of Studebaker Road. The developer shall dedicate the same to the City.
- n. The developers of Areas 25 and 26 shall contribute on a fair share basis provide for the construction of any improvements necessary to cross the San Gabriel River Regional Bikeway from the east levee to the west levee of the river at Westminster Avenue 2nd Street. These should be limited to on-street pavement markings.
- o. The developers shall contribute on a fair share basis to participate in the cost of constructing the connection between Studebaker Road extension between Westminster Avenue and Pacific Coast Highway if approved by the City and Shopkeeper Road, T, the amount of that participation to be calculated to be the length in feet of property fronting on each side of said roadway multiplied by the average cost per linear foot of constructing one lane of said roadway, to the satisfaction of the City Engineer.
- p. The developers of Areas 25 and 26 shall contribute on a pro rata basis to improve that portion of the San Gabriel River bank adjacent to their property with a pedestrian walk, bicycle trail and related landscaping, such development to continue one-half of the distance under the Pacific Coast Highway bridge to join with similar facilities in Area 29.
- q. The developer of Area 26 shall construct a bicycle trail along the east side of Studebaker Road for the entire frontage on said road.
- r. A ~~non-wetland~~ habitat corridor shall be provided in Area 25 from ~~Westminster Avenue~~ 2nd Street to the San Gabriel River. Such corridor shall be not less than 400 feet in width (when measured from the existing buildings in Area 18, the Marketplace) and shall include Shopkeeper Drive. No building shall be allowed in this corridor, except that no less than 70 feet from Shopkeeper Drive, single story (not to exceed 20 feet in height) commercial office or light industrial use building shall be allowed. The long axis of any buildings in the non-wetland habitat corridor shall be parallel to the long axis of the corridor.
- s. ~~Additionally, the following wording shall be appended to the standards for Area 18 in order to assure control of development in the non-habitat corridor.~~

~~"The parking lot between the existing buildings and Shopkeeper Drive is part of the non-wetland habitat corridor. No buildings shall be allowed in this corridor (see Area 25)."~~

SUBAREA 27

This area is to be utilized entirely in the wetlands restoration program.

SUBAREA 28

This site is owned by Orange County and is utilized by the County as a retention basin.

SUBAREA 29

- a. Use: Commercial office, restaurants, commercial recreation and commercial retail uses.
- b. All improved building sites shall have a minimum landscaped coverage of 15 percent and shall be provided with an irrigation system. Boundary landscaping shall be provided on all interior property lines. Parking areas shall be landscaped with a minimum of one tree per each five parking stalls.
- c. No more than 5,000 square feet of floor area shall be used for medical/dental offices.
- d. The developer shall construct a widening of Pacific Coast Highway in accordance with a plan prepared by the Director of Public Works which calls for a six lane, divided highway with sidewalks and bike trail, and dedicate the same to the City.
- e. The developer shall dedicate and improve necessary land along the San Gabriel River bank to provide a pedestrian walk, bicycle trail and related landscaping, such development to continue one-half of the distance under the Pacific Coast Highway bridge to join with similar facilities in Area 25. Also, the developer shall continue Studebaker extension bikeway from Pacific Coast Highway to Marina Drive.
- f. The maximum height of buildings shall be 30 feet for residential and 35 feet for non-residential uses, unless otherwise provided herein. Architectural features, such as tower elements, may be approved up to a height of 43 feet through the site plan review.
- g. Curb cuts shall be permitted on Pacific Coast Highway, Studebaker Road, and Marina Drive subject to the approval of the City Traffic Engineer and/or CALTRANS, where appropriate.
- h. Development in or near wetlands. The City shall preserve and protect wetlands within Subarea 29. "Wetlands" shall be defined as any area, which may be covered periodically or permanently with shallow water, including, but not limited to, saltwater marshes, swamps, mudflats and fens. In addition, "wetlands" shall also be defined as specified in the Commissions Statewide Interpretive Guidelines and Section 13577(b) of the California Code of Regulations. As part of any discretionary review or the required environmental analysis associated with a development proposal in Subarea 29, the applicant shall provide evidence from a qualified biologist whether or not wetlands exist on the site of the proposed development. If any wetlands are identified on the site, the applicant shall be required to obtain confirmation of the wetlands delineation from the U.S. Fish & Wildlife Service and/or the State Department of Fish & Game, and the applicant shall solicit the resource agencies' recommendation on the appropriateness of the proposed development, the permissibility of the development impacts, and any required mitigation.

All proposed development must conform to the following:

Within Subarea 29, the diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of the Coastal Act where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following (1-8):

- (1) New or expanded port, energy and coastal-dependent industrial facilities, including commercial fishing facilities.
- (2) Maintaining existing, or restoring previously dredged depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
- (3) In wetland areas only, entrance channels for new or expanded boating facilities, and in degraded wetlands identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411 of the Coastal Act, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.
- (4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
- (5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- (6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
- (7) Restoration purposes.
- (8) Nature study, aquaculture, or similar resource dependent activities.

Where it has been determined that there is no feasible less environmentally-damaging alternative and the proposed impacts are one of the eight allowable uses specified above, the diking, filling or dredging of open coastal waters, wetlands, estuaries and lakes shall be mitigated to minimize adverse environmental effects through habitat replacement, restoration and enhancement activities. There shall be no net loss of wetland acreage or habitat value as a result of land use or development activities. Mitigation ratios may vary depending on the specific site conditions; location of habitat areas; the amount of impacts, the nature, quality and uniqueness of the affected habitat, resource agency consultation, precedential coastal development permit decisions, and other factors. However, typical mitigation ratios are 3:1 for riparian areas and 4:1 for Saltmarsh habitats. Specifically, when wetland impacts are unavoidable, replacement of the lost wetland shall be required through the creation of new wetlands at a ratio determined by the appropriate

regulatory agencies but in any case at a ratio of greater than one acre provided for each acre impacted so as to ensure no net loss of wetland acreage. Replacement of wetlands on-site or adjacent, within the same wetlands system and in-kind mitigation shall be given preference over other mitigation options.

Development located adjacent to wetland habitat areas shall not adversely impact the wetlands. A 100 foot buffer shall be provided between development and wetland habitats and a 50 foot buffer shall be provided between development and riparian areas unless, in consultation with the U.S. Fish & Wildlife Service and/or the State Department of Fish & Game, it is determined that a reduced buffer is sufficient. Uses and development within buffer areas shall be limited to minor passive recreational uses or other improvements deemed necessary to protect the habitat and shall be located in the portion of the buffer area furthest from the wetland. All identified wetlands and buffers shall be permanently conserved or protected through the application of an open space easement or other suitable device.

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

In addition to the other provisions of this section, diking, filling or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish & Game, including but not limited to the 19 Coastal Wetlands identified in its report entitled "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with the provisions of the Coastal Act.

Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients, which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a Coastal Development Permit for such purposes are the method of placement, time of year of placement and sensitivity of the placement area.

SUBAREA 30

(Deleted)

SUBAREA 31

Use: Jack Dunster Marine Biological Reserve and Costa del Sol, public parks.

SUBAREA 32

- a. Use: Public park.
- b. This area is to be improved by the City.

SUBAREA 33

- a. Use: Wetlands and open space; existing oil production operations, recreation.
- b. Upon cessation of oil operations, the area shall be restored pursuant to the wetlands restoration plan approved by the City, State and federal agencies.

Wetlands shall be restored pursuant to one of two means:

- (1) A wetlands restoration plan that is intended to support creation and operation of a wetlands mitigation bank that is approved by State and federal resource agencies, including but not limited to the U.S. Army Corps of Engineers and the California Coastal Commission; or
- (2) A wetlands restoration plan that is approved by State and federal resource agencies, including the U.S. Army Corps of Engineers and the California Coastal Commission, and implemented upon cessation of oil operations.
- c. Passive recreation uses shall be permitted, including trails.
- e-d. The wetlands restoration area may be permitted to operate as a wetlands mitigation bank if approved by State and federal agencies.

The recently established least tern site shall be designated as habitat area and preserved as such unless or until the Department of Fish and Game may determine that it is appropriate to experiment with enhancing least tern habitat and allow up to two acres within Parcel 33.

EXHIBIT D

Application No. 1601-05 Zoning Code Amendment - SEADIP Consistency with the Long Beach General Plan

Subareas 11a and 33: Synergy Oil Field

Subareas 11a and 33 (Synergy Oil Field) are within the SEADIP; however, they are not assigned a specific land use designation under the City's General Plan. The SEADIP provides land use guidance and the proposed project's consistency with the policies and regulations contained in the SEADIP are discussed further under Consistency with the Long Beach Zoning Code, below.

The proposed changes to SEADIP Subareas 11a and 33 are to reflect the existing oil operation uses and the project's plan to restore the wetlands and establish public access. The General Plan Land Use Element discusses SEADIP in the section devoted to Neighborhood Plans. The General Plan description notes the existence of active oil operations in the SEADIP area located on the Synergy Oil Field and City Property sites (City of Long Beach 1989, 169). The General Plan Recreation and Open Space Element supports the preservation and rehabilitation of the Los Cerritos Wetlands. These uses and activities would also be consistent with the overall goals and policies of the California Coastal Act providing public access, low-cost visitor serving uses, and recreational opportunities within the coastal zone.

Subarea 25 (Pumpkin Patch Site and City Property)

The Pumpkin Patch site is designated as LUD No. 7, Mixed Uses under the General Plan, which allows retail, offices, medical facilities, higher density residences, visitor-serving facilities, personal and professional services, and recreational facilities (City of Long Beach 1989, 65). The City Property, however, is not assigned a specific land use designation under the City's General Plan and is not part of the City's Local Coastal Program. However, because it is part of SEADIP Subarea 25, it would be affected by any changes to SEADIP.

The proposed changes to SEADIP Subarea 25 would allow for industrial and office uses, as well as oil production. While the LUD No. 7 designation does not promote industrial uses, it also does not preclude the assignment of this district designation to areas for industrial, manufacturing, and/or warehousing uses if the site has a previous history of this use or is in an area where this use exists. The General Plan discusses the existing active oil operations on the Synergy Oil Field and City property sites (City of Long Beach 1989, 169). In these situations, the General Plan encourages appropriate accompanying land uses, including office use (City of Long Beach 1989, 66). LUD No. 7 is a mixed-use designation in the General Plan where residential, commercial, and industrial uses are allowed. The Pumpkin Patch site works well because it contains a commercial office component as well as industrial uses. Given that the site has been used for oil production, development of industrial uses and accompanying office uses on the Pumpkin Patch site would be consistent with LUD No. 7 in light of the site's prior history of oil production and

the adjacent oil production activities on the City Property site. Therefore, industrial, office, and oil production activities on this site would not conflict with the Long Beach General Plan.

Subarea 19 (LCWA Site)

The LCWA site is also designated under the General Plan as LUD No. 7, Mixed Uses, and is surrounded by industrial uses and, thus, the area is considered industrial in nature or can be considered to have an industrial base.

The proposed changes to SEADIP Subarea 19 would allow for oil production and industrial uses. Subarea 19 includes the LCWA site as well as the Plain All American and AES Power Plan sites, therefore exhibiting a long-standing industrial character. Allowing oil production uses along with industrial uses would not conflict with the General Plan. Given that the site has been used for storage of industrial manufacturing items and has a history of industrial use, the proposed industrial use on the LCWA site would be consistent with this land use designation. The LCWA site is also within the SEADIP and is addressed in the Neighborhood Plan section of the Land Use Element of the General Plan.

CHAPTER 12.08 - OIL OPERATING AREAS

12.08.010 - Drilling prohibited generally.

Except as in this Chapter otherwise provided, it is unlawful and a nuisance for any person to drill any well, or to erect any derrick or production equipment, or to operate or maintain the same or any thereof, or any portion of any thereof in or upon any real property in the City.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.5)

12.08.020 - Permit required.

Except as provided in this Chapter, no petroleum operations shall be carried on in any of the areas set out in this Chapter until a permit, as provided for in this title, has been applied for and issued therefor.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.030 - Area 1—Harbor district central.

Area 1 is that portion of the City bounded as follows:

On the north by the south line of Pacific Coast Highway; on the south by the line of ordinary high tide of the Pacific Ocean; on the east by the west line of the right-of-way of the Los Angeles County flood control district channel of the Los Angeles River; and on the west by the westerly boundary line of the City; to the extent that such drilling, erection, operation and maintenance within the area are not in conflict with that certain initiative ordinance adopted by a vote of the registered qualified electors of the City at a special municipal election held on the fifteenth (15th) day of June, 1937, pursuant to the provisions of Ordinance No. C-1505, ordinance of the City.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.040 - Area 2—West sixty feet of the flood control channel harbor in district.

Area 2 is the west sixty feet (60') of the right-of-way of the Los Angeles County flood control district channel of the Los Angeles River, to the extent and in the manner authorized by the judgment in that certain action in the Superior Court of the State, in and for the County of Los Angeles, entitled "*Continental Corporation, a corporation, et al., plaintiffs, vs. City of Long Beach, et al., defendants,*" being action No. 442081 in the files of the Clerk of the Court, and further to the extent and in the manner authorized by judgments in those certain actions in the Superior Court of the State, in and for the County of Los Angeles entitled, "*Continental Southern Corporation, a corporation, et al., plaintiffs, vs. City of Long Beach, a municipal corporation, et al., defendants,*" being action No. 502421 in the files of the Clerk of the Court, and "*Continental Northern Corporation, a corporation, et al., plaintiffs, vs. City of Long Beach, a municipal corporation, et al., defendants,*" being action No. 502422 in the files of the Clerk of the Court.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.050 - Area 3—Tidelands in the harbor district east of the back channel.

Area 3 is that portion of the harbor district of the City lying southerly of the line of ordinary high tide of the Pacific Ocean and easterly of the centerline and its southerly prolongation of the back channel to the Long Beach inner harbor.

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([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.060 - Area 4—Tidelands in the harbor district west of the back channel.

Area 4 is that portion of the harbor district of the City lying southerly of the line of ordinary high tide of the Pacific Ocean and westerly of the centerline and its southerly prolongation of the back channel to the Long Beach inner harbor.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.070 - Area 5—Signal Hill northwest.

Area 5 is that portion of the City as described as follows:

Beginning at the northeasterly corner of Lot 57, Resubdivision of American Heights Tract, as per map recorded in Book 7, page 180, of maps in the Office of the Recorder of the County, said northeasterly corner being in the southerly line of 29th Street (formerly Brandon Street) 50 feet wide, as shown on Map of E. S. Field's Long Beach Heights No. 1, recorded in Book 10, page 196, of maps in the office of said county recorder; thence easterly along the southerly line of 29th Street and the prolongation thereof to a line 90 feet easterly of, measured at right angles and parallel to, the easterly line of Atlantic Avenue, 80 feet wide, said parallel line being the common boundary line between the cities of Long Beach and Signal Hill; thence northerly and easterly along said boundary line to its intersection with the prolongation southerly of the centerline of that portion of Lime Avenue, 60 feet wide, lying north of Wardlow Road; thence northerly along said prolongation and said centerline to the centerline of 35th Street (formerly Chateau Thierry Street), 51 feet in width; thence westerly along said centerline of 35th Street to the prolongation southerly of the easterly line of Lot 10, Block 12, Tract No. 2964, as per map recorded in Book 37, page 35, of maps in the Office of said County Recorder; thence northerly along said prolongation and said easterly line of said Lot 10 to the northeasterly corner of said Lot 10; thence westerly along the northerly line of said Lot 10 and along the prolongation west of said northerly line to the centerline of Atlantic Avenue, 80 feet in width; thence northerly along said centerline of Atlantic Avenue to the prolongation easterly of the northerly line of Lot 17, Block 11, aforementioned Tract No. 2964; thence westerly along said prolongation and along the northerly line of Lot 1, said Block 11, and the westerly prolongation thereof to the centerline of Linden Avenue, 80 feet wide; thence southerly along the centerline of Linden Avenue to a point in the easterly prolongation of the northerly line of Lot 16, Block 10, aforementioned Tract No. 2964, the same being the most southerly line of 36th Street (formerly Lincoln Avenue), 40 feet wide; thence westerly along said easterly prolongation, said southerly line of 36th Street and its westerly prolongation, to the northwest corner of Lot 1, Block 9, aforementioned Tract No. 2964; thence northwesterly in a direct line to the northeast corner of Fractional Lot 7, Block F, Los Cerritos, as per map recorded in Book 12, pages 198 and 199, of maps in the Office of said County Recorder; thence westerly along the northerly line of Fractional Lot 7 and along the northerly line of Fractional Lot 50, said Block F, aforementioned Los Cerritos, to the northwest corner of Fractional Lot 50, said Block F, said point also being the intersection of the southerly line of 36th Street (formerly Lincoln Avenue), 80 feet wide, and the easterly line of Locust Avenue, 60 feet wide; thence northwesterly in a direct line to the southeast corner of Lot 19, Tract No. 2219, as per map recorded in Book 22, page 41, of maps in the Office of said County Recorder, said point also being the intersection of northerly line of 36th Street and westerly line of Locust Avenue; thence northerly along westerly line of Locust Avenue, 60 feet wide, to the point of intersection with the southerly line of Cameron Place, 60 feet wide, said point being the northeast corner of Lot 1, aforementioned Tract No. 2219; thence northerly in a direct line to the southeast corner of Lot 18, Block B, Tract No. 4921, as per map recorded in Book 53, pages 51 and 52, of maps in the Office of said County Recorder, said point also being the intersection of the northerly line of Cameron Place and westerly line of Locust Avenue; thence northerly along the westerly line of Locust Avenue, 60 feet wide, as shown on map of said Tract No. 4921 to the northeast corner of Lot 42, said Block B, being a point in the southerly line of Bixby Road, 80 feet wide; thence westerly along said southerly line of Bixby Road and its westerly prolongation to the northeast corner of Lot 1, Block C, aforementioned Tract No. 4921, said point being the intersection of the southerly line of said Bixby Road and the westerly line of Weston

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Place (formerly Pine Avenue), 60 feet wide; thence southerly along the westerly line of Weston Place, 60 feet wide, to the southeast corner of Lot 24, said Block C, said point being the intersection of the westerly line of said Weston Place and the northerly line of Cameron Place, 60 feet wide; thence southerly in a direct line to the northeast corner of Lot 5, aforementioned Tract No. 2219, said point being the intersection of the westerly line of said Weston Place and southerly line of Cameron Place; thence southerly along the westerly line of Weston Place, 60 feet wide, and its southerly prolongation to the point of intersection with the southerly line of 36th Street (formerly Lincoln Avenue), 80 feet wide; thence westerly along the southerly line of 36th Street, 80 feet wide, and its westerly prolongation to the northwest corner of Fractional Lot 156, Block F, aforementioned Los Cerritos, said point also being the intersection of said southerly line of 36th Street with the easterly line of Pacific Avenue, 100 feet wide; thence southerly along the easterly line of Pacific Avenue, 100 feet wide, to the southwesterly corner of Lot 146, Block F, aforementioned Los Cerritos, said point also being the intersection of said easterly line of Pacific Avenue with the northerly line of Wardlow Road, 100 feet wide, as shown on map of said Los Cerritos; thence southerly in a direct line to the northwest corner of Lot 23, Block I, Vista Del Mar Tract No. 2, as per map recorded in Book 10, page 158, of maps in the Office of said County Recorder, said point also being the intersection of the southerly line of Wardlow Road, 100 feet wide, and the easterly line of Pacific Avenue, 100 feet wide; thence southerly along the easterly line of Pacific Avenue, 100 feet wide, to a point in the northerly line of 33rd Street (formerly Del Mar Avenue) 80 feet wide, said point being the southwest corner of Lot 16, said Block I, aforementioned Vista Del Mar Tract No. 2; thence easterly along the northerly line of said 33rd Street, 80 feet wide, to a point in the westerly line of Pine Avenue (formerly Pacific Boulevard) 120 feet wide, said point being the southeast corner of Lot 1 said Block I, aforementioned Vista Del Mar Tract No. 2; thence southeasterly in a direct line to a point on the easterly line of said Pine Avenue, 120 feet wide, said point also being the southwest corner of Lot 45, Block E, aforementioned Vista Del Mar Tract No. 2; thence southerly along the easterly line of Pine Avenue, 120 feet wide, to a point, said point being the beginning of a tangent curve concave to the northeast and having a radius of 280 feet; thence southeasterly along said curve to a point in the northerly line of 31st Street (formerly Frankfort Street), 120 feet wide; thence easterly along the northerly line of 31st Street, 120 feet wide, to a point, said point being the beginning of a tangent curve concave to the southwest and having a radius of 220 feet; thence southeasterly along said curve to a point on the westerly line of Long Beach Boulevard (formerly American Avenue), 100 feet wide; thence southeasterly in a direct line to a point on the southerly line of 31st Street (formerly Frankfort Street), 60 feet wide, said point also being the northwest corner of Lot 1, Block A, Tract No. 3207, as per map recorded in Book 33, page 7, of maps in the Office of said County Recorder; thence southerly along the westerly line of said Block A, being the easterly line of Long Beach Boulevard (formerly American Avenue), as shown on aforementioned map of Tract No. 3207, to the northerly line of Spring Street, 60 feet wide; thence easterly along the northerly line of said Spring Street, 60 feet wide, and its easterly prolongation to its intersection with the northerly prolongation of the easterly line of the alley, 13 feet wide, west of Atlantic Avenue and south of Spring Street in E. S. Field's Long Beach Heights No. 1, as shown on map recorded in Book 10, at page 196, of maps in the Office of said County Recorder; thence southerly along the easterly line of said alley and its southerly prolongation to a point in the southerly line of 29th Street (formerly Brandon Street), 50 feet wide, thence easterly along the southerly line of said 29th Street, 50 feet wide, to the point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.080 - Area 6—Signal Hill, cemetery, north and northeast.

Area 6 is that portion of the City described as follows:

Beginning at the intersection of the north line of Spring Street with the west line of Orange Avenue, said point being in the boundary line of the City of Long Beach; thence southerly along the boundary line of the City of Long Beach and following the various courses of said boundary to the north line of Farm Lot 12, The American Colony Tract as per map thereof recorded in Book 19, pages 89 and 90, miscellaneous records of Los Angeles County; thence easterly along the north line of said Farm Lot 12 to a line 433 feet westerly of the parallel to the easterly line of Farm Lot 7, said The American Colony Tract, thence

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northerly along said line 433 feet westerly of and parallel to the easterly line of said Farm Lot 7 to a line 50 feet southerly of and parallel to the northerly line of said Farm Lot 7; thence easterly along said line 50 feet southerly of and parallel to the northerly line of said Farm Lot 7 to line 333 feet westerly of and parallel to the easterly line of said Farm Lot 7; thence southerly along said line 333 feet westerly of and parallel to the easterly line of said Farm Lot 7 to the north line of said Farm Lot 12, thence easterly along the north line of said Farm Lot 12, and the easterly prolongation thereof, to the east line of Cherry Avenue; thence northerly along said east line of Cherry Avenue to the south line of Wardlow Road; thence easterly along said south line of Wardlow Road to a point in a line 588 feet easterly from and parallel with the centerline of said Cherry Avenue; thence southerly along said last-mentioned parallel line to the north line of Farm Lot 29; thence easterly 300 feet, along said north line of Farm Lot 29; thence southerly parallel to said centerline of Cherry Avenue to a point in the north line of Spring Street, said point being in the boundary line of the City of Long Beach; and thence westerly along the boundary line of the City to the point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980; prior code § 3300.6 (part))

12.08.090 - Area 7—Signal Hill, reservoir and southeast.

Area 7 is divided into two (2) parcels, designated as Parcel A and Parcel B, and is that portion of the City described as follows:

Parcel A. Beginning at the intersection of the boundary of the City in Pacific Coast Highway, formerly State Street, with the prolongation northerly of the east line of the alley west of Obispo Avenue, thence easterly along the boundary of the City, and following the various courses of said boundary to the northeasterly line of the Alamitos Tract, as per map recorded in Book 36, pages 37 to 44, miscellaneous records of Los Angeles County, thence southeasterly along said northeasterly line of Alamitos Tract to a line 300 feet east of and parallel to the east line of Termino Avenue; thence south along said parallel line to the north line of Pacific Coast Highway, 100 feet in width, formerly State Street; thence east along the north line of Pacific Coast Highway, 100 feet in width, formerly State Street to a line 180 feet easterly of, measured at right angles, and parallel to, the easterly line of the parcel of land conveyed to the City by deed recorded in Book 4752, page 134, of deeds, records of Los Angeles County (Community Hospital Lands); thence southerly along said parallel line to a line 150 feet south of, measured at right angles, and parallel to, the south line of Pacific Coast Highway, 100 feet in width, formerly State Street; thence west along the last-mentioned parallel line to the west of Termino Avenue to the north line of Fifteenth Street; thence west along the north line of Fifteenth Street to the east line of Redondo Avenue; thence north along the east line of Redondo Avenue to the north line of Ransom Street; thence west along the north line of Ransom Street to the east line of Obispo Avenue; thence north along the east line of Obispo Avenue to the south line of Lot 2, Block 1, Tract No. 1954, as per map recorded in Book 22, pages 110 and 111 of maps, records of the County; thence westerly along the westerly prolongation of the south line of said Lot 2 to the east line of the alley west of Obispo Avenue; and thence north along the east line of said alley and the prolongation thereof to the point of beginning.

Parcel B. Beginning at the center of the inner circle of Los Alamitos Circle, which has a radius of 180 feet, said radial point being 19.41 feet northerly measured at right angles to the centerline of Pacific Coast Highway, formerly State Street, 60 feet in width as shown on map of Alamitos Tract, as recorded in Book 36, pages 37 to 44, both inclusive, miscellaneous records, of the County; thence south $0^{\circ} 01' 15''$ east from said radial point a distance of 347.00 feet to the true point of beginning of this description; thence south $75^{\circ} 43' 28''$ east a distance of 272.85 feet to a point in the northerly line of the Outer Circle; thence along said northerly line of the Outer Circle south $29^{\circ} 18' 46''$ west a distance of 17.44 feet to an intersection with a curve, concave northerly and having a radius of 500 feet, a radial line through said point having a bearing of south $30^{\circ} 47' 55''$ east; thence westerly along said curve, concave to the north and having a radius of 500 feet a distance 435.66 feet to a point in said curve, a radial line, through said last-mentioned point having a bearing of south $19^{\circ} 07' 26''$ west, said point being an intersection with a curve, concave to the west and having a radius of 500 feet, a radial line through said last-mentioned point having a bearing of north $87^{\circ} 12' 31''$ east; thence leaving the northerly line of the Outer Circle and northerly along said last-mentioned curve, concave to the west and having a radius of 500 feet a distance

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of 127.66 feet to a point in said curve, a radial line through said last-mentioned point having a bearing of north 72° 34' 48" east; thence north 89° 58' 45" east a distance of 186.27 feet to the true point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.100 - Area 8—Alamitos Heights and Flats.

Area 8 is that portion of the City described as follows:

Beginning at the intersection of the centerline of Santiago Avenue, 60 feet wide, and the southerly line of Colorado Street, 60 feet wide; thence east along the southerly line of Colorado Street to the boundary line of the City of Long Beach as established by Increment 11 of annexation to the City of Long Beach, filed with the Secretary of the State of California, December 17, 1923; thence southerly and easterly along the boundary line of the City of Long Beach as established by said Increment 11 and following its various courses to the most southerly corner of Lot 1, Tract No. 1077, as per map recorded in Book 18, page 195 of maps, records of the County; thence northwesterly along the southerly line of said Lot 1 to the intersection of a line 800 feet northeasterly of and parallel to the northeasterly line of the 200-foot right-of-way of the Pacific Electric Railway Company's Newport Beach Line, thence northwesterly along said parallel line to the northwesterly line of Parcel 1 of the property conveyed to the City by deed recorded in Book 4654, page 163, of official records in the Office of the County Recorder, having a bearing of south 74° 39' 30" west and a length of 401.30 feet; thence south 74° 39' 30" west 95.53 feet to an angle in said Parcel 1; thence south 56° 04' 30" west, 167.47 feet to the most westerly corner of said Parcel 1; thence north 56° 04' 25" west 311.34 feet to a point in the easterly line of Parcel 2 of said property conveyed to the City; thence south 80° 07' 11" west, 102.51 feet to a point in the southwesterly line of said Parcel 2; thence north 21° 42' 40" west 309.95 feet along said southwesterly line of Parcel 2 to a point in a curve concave to the south and having a radius of 1884.91 feet, a radial line passing through said point of curve having a bearing of north 3° 43' 54" east; thence southeasterly along said curve an arc distance of 503.52 feet to the end of said curve, a radial line passing through the end of said curve having a bearing of north 19° 02' 14.7" east; thence south 70° 57' 45.3" east 122.99 feet to the centerline of Santiago Avenue, 60 feet wide; and thence northerly along said centerline of Santiago Avenue to the point of beginning. Provided, however, that it is unlawful hereafter to drill any new well or to erect any derrick within that portion of Area 8 described as follows: Beginning at the intersection of the centerline of Santiago Avenue (60 feet wide) with the south line of Colorado Street (60 feet wide); thence east along said south line of Colorado Street to the centerline of Manila Avenue (60 feet wide); thence south 250 feet along said centerline of Manila Avenue; thence west along a line 250 feet south of and parallel to said south line of Colorado Street to the westerly line of Parcel 2 of the land conveyed to the City by deed recorded July 17, 1926, in Book 4653, page 163, of official records in the Office of the County Recorder, thence northwesterly along said westerly line of Parcel 2 to the south line of Colorado Street (60 feet wide); thence east along said south line of Colorado Street to the point of beginning.

Along with:

In the City of Long Beach, County of Los Angeles, State of California, and is described as follows:

Parcels 4, 5 and 6, as shown on Parcel Map No. 19212, as per map filed in book 260, pages 93 and 94 of parcel maps, in the office of the recorder of said County; except therefrom all oil, gas, petroleum and other hydrocarbon substances conveyed by various instruments both recorded and unrecorded all confirmed and clarified by deed from Fred H. Bixby Ranch Company, a California Corporation, recorded September 16, 1971 as instrument no. 3355, in Book D 5193 Page 959 of official records, which deed recites that the grantees, their heirs, successors and assigns shall have no right to enter upon the surface of the property or use the property or any portion thereof above a plane parallel to and 500 feet below the present surface thereof without the express approval in writing of the grantor. Subject to covenants, conditions, restrictions, reservations, easements and rights-of-way of record if any.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

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12.08.110 - Area 9—San Gabriel River.

Area 9 is that certain parcel of land being a portion of Lot 2, Tract No. 1077, in the City of Long Beach, as per map recorded in Book 18, page 195 of maps, in the Office of the County Recorder, more particularly described as follows:

Beginning at the intersection of the southwesterly line of said Lot 2 with a line 40 feet northwesterly of, measured at right angles and parallel to, the northwesterly right-of-way line of the Los Angeles County flood control district San Gabriel River Channel, 400 feet wide thence northwesterly along said southwesterly line of Lot 2 to the intersection with a line 205 feet northwesterly of, measured at right angles and parallel to, said northwesterly right-of-way of San Gabriel River Channel; thence northeasterly along said parallel line to the intersection with a line 400 feet northwesterly of, measured at right angles and parallel to, said southwesterly line of Lot 2; thence southeasterly along said last-mentioned parallel line to said line 40 feet northwesterly of and parallel to said northwesterly right-of-way line of the San Gabriel River Channel; and thence southwesterly along said line 40 feet northwesterly of and parallel to said northwesterly right-of-way line of the San Gabriel River Channel to the point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.120 - Area 10—Signal Hill Water Department lands northeast.

Area 10 is that portion of the City described as follows:

Beginning at the intersection of the southerly line of Farm Lot 45, The American Colony Tract, as per map thereof recorded in Book 19, pages 89 and 90, miscellaneous records of Los Angeles County with a line 390 feet westerly of and parallel to the east line of Temple Avenue, said point of intersection being in the boundary line of the City of Long Beach, thence northerly along said line 390 feet westerly of and parallel to the easterly line of Temple Avenue to the southerly line of Spring Street; thence easterly along said southerly line of Spring Street to a point in a line 660 feet easterly from and parallel with said easterly line of Temple Avenue; thence southerly along said line 660 feet easterly from and parallel with said easterly line of Temple Avenue; thence southerly along said line 600 feet easterly from and parallel with said easterly line of Temple Avenue to a point in a line 290.95 feet northerly from and parallel with the centerline of Willow Street, as per deed recorded in Book 5961, page 93, of deeds, records of Los Angeles County; thence easterly along said line 290.95 feet northerly from and parallel with the centerline of said Willow Street to the southeasterly line of that portion of Rancho Los Cerritos, as per map recorded in Book 2, page 202, of patents, records of Los Angeles County, deeded to the City by deed recorded in Book 4727, page 245, of deeds, records of Los Angeles County, said southeasterly line of that portion of Rancho Los Cerritos being also the northwesterly line of Page 16, Lot 1, Tract No. 10548, as per map recorded in Book 174, page 17, of maps, records of Los Angeles County; thence northeasterly along said northwesterly line of said Lot 1 to the westerly line of Newport Avenue; thence southerly along said westerly line of Newport Avenue to the north line of Willow Street; thence westerly along said northerly line of Willow Street to the aforementioned southeasterly line of Rancho Los Cerritos; thence southwesterly along said southeasterly line of that portion of said Rancho Los Cerritos, deeded to the City of Long Beach, to its intersection with the southerly line of Willow Street, said point of intersection being in the boundary line of the City; and thence southwesterly along the boundary line of the City and following the various courses of said boundary line to the point of beginning in the southerly line of aforementioned Farm Lot 45, The American Colony Tract, 390 feet westerly thereon from the easterly line of Temple Avenue.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.130 - Area 11—Water Department lands, airport central south.

Area 11 is that portion of City described as follows:

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Beginning at the intersection of the southerly line of Spring Street with a line 400 feet easterly of and parallel to the centerline of Newport Avenue; thence southerly along said line 400 feet easterly of and parallel to the centerline of Newport Avenue to a point in the southeasterly line of that portion of the Rancho Los Cerritos, as per map recorded in Book 2, page 202, of patents, records of Los Angeles County deeded to the City by deed recorded in Book 4727, page 245, of deeds, records of Los Angeles County; thence southwesterly along said southeasterly line of that portion of said Rancho Los Cerritos to a point in a line 700 feet westerly of and parallel to the centerline of Newport Avenue; thence northerly along said parallel line to the southerly line of Spring Street; and thence easterly along said southerly line of Spring Street to the point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.140 - Area 12—Virginia Country Club west.

Area 12 is that portion of the City described as follows:

That portion of Lot 6, Block D, and that portion of Lot 5, Block E, Subdivision of a part of the Rancho San Pedro, as per map recorded in Book 32, pages 97 and 98, miscellaneous records of the County of Los Angeles, more particularly described as follows: Beginning at the intersection of the Compromise Ranch Line, as per map filed in Book 6, pages 15 and 16, records of surveys, in the Office of the County Recorder, with the southerly right-of-way line of the Union Pacific System private right-of-way; thence south 24° 21' 17" east along said Compromise Line 34.50 feet; thence south 34° 04' 58" west 456.21 feet; thence south 22° 36' 48" west 1,269.48 feet; thence south 72° 19' 08" west 268.19 feet; thence south 45° 33' 33" west 348.86 feet to a point in the easterly right-of-way line of the Los Angeles River flood control channel, said easterly right-of-way line being a boundary line of the City; thence north 3° 04' 59" east 1,420.84 feet along said easterly right-of-way line of the Los Angeles River flood control channel to the southerly right-of-way line of the Union Pacific System private right-of-way; and thence north 67° 08' 23" east along said southerly right-of-way line of the Union Pacific System private right-of-way 1,256.41 feet to the point of beginning; excepting therefrom all that portion of said parcel lying westerly of a line 120 feet easterly of and parallel to the easterly right-of-way line of the Los Angeles River flood control channel, and all that portion of said parcel lying northerly of a line 120 feet southerly of and parallel to the southerly right-of-way line of the Union Pacific System private right-of-way.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.150 - Area 13—Flood control, Del Amo south.

Area 13 is that portion of the City described as follows:

That portion of Lot 5, Block D, Subdivision of a part of the Rancho San Pedro, as per map recorded in Book 32, pages 97 and 98, miscellaneous records of the County, more particularly described as follows: Beginning at the intersection of the southerly line of said Lot 5 with the westerly line of Tract No. 3554, as per map recorded in Book 38, pages 44 and 45, of maps, records of the County of Los Angeles; thence westerly along said southerly line of said Lot 5 to the easterly right-of-way line of the Los Angeles River flood control channel, said easterly right-of-way line being a boundary line of the City; thence northerly along said easterly right-of-way line of the Los Angeles River flood control channel to its intersection with the westerly line of aforementioned Tract No. 3554; and thence southerly along the westerly line of said Tract No. 3554 to the point of beginning; excepting therefrom all that portion of said parcel lying westerly of a line 120 feet easterly of and parallel to the easterly right-of-way line of the Los Angeles River flood control channel.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.160 - Area 14—Airport central and west.

EXHIBIT E

Area 14 is that portion of the City described as follows:

The southerly 300 feet of the northerly 340 feet of the easterly 410 feet of Farm Lot 8 and the southerly 300 feet of the northerly 340 feet of the westerly 1,070 feet of Farm Lot 9, and the northerly 300 feet of Vine Avenue (vacated) all in The American Colony Tract, as per map thereof recorded in Book 19, pages 89 and 90, miscellaneous records of Los Angeles County.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.170 - Area 15—Airport northwest.

Area 15 is that portion of the City described as follows:

The southerly 200 feet of Lot 48, and the southerly 200 feet of the westerly 100 feet of Lot 49, all in Tract No. 8084, as per map thereof recorded in Book 171, of maps, pages 24 to 30 inclusive, records of Los Angeles County.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.180 - Area 16—Willow and Lakewood.

Area 16 is that portion of the City described as follows:

Beginning at the intersection of the centerline of Lakewood Boulevard with the centerline of Willow Street; thence north 0° 05' 53" east along the centerline of Lakewood Boulevard a distance of 745.53 feet; thence westerly at right angles to said centerline of Lakewood Boulevard to a point in a line 66 feet westerly of, measured at right angles and parallel to, the centerline of said Lakewood Boulevard, said point being true point of beginning of this description; thence south 0° 05' 53" west a distance of 100.53 feet; thence south 34° 33' 48" west a distance of 106.39 feet to the beginning of a tangent curve concave to the northwest and having a radius of 155.00 feet; thence southwest along said curve a distance of 180.34 feet to line tangent; thence north 78° 46' 20" west a distance of 492.63 feet to the beginning of a tangent curve concave easterly and having a radius of 145.00 feet; thence northwesterly and northeasterly along said curve through an angle of 180° 00' 20" a distance 455.54 feet to a line tangent; and thence south 78° 46' 00" east a distance of 657.68 feet to the true point of beginning of this description.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.190 - Area 17—Airport west.

Area 17 is that portion of the City described as follows:

That portion of the Rancho Los Cerritos as per map recorded in Book 2, page 202, of patents, in the Office of the County Recorder more particularly described as follows:

Beginning at a point on the southerly line of that certain railroad right-of-way, 20 feet wide, marked "not a part of this Subdivision" on map of Tract No. 8084 as recorded in Book 171, pages 24 to 30 inclusive, of maps in the Office of said County Recorder, said point being the northwesterly corner of that certain parcel vested in the City by final order of condemnation recorded in Book 27785, page 47, official records in the Office of said County Recorder; thence south 0° 02' 35" east along the westerly line of said condemnation parcel 5.00 feet to a point on the southerly line of an easement for the construction and maintenance of slopes, as granted to Los Angeles & Salt Lake Railroad Company by deed recorded in Book 6753 page 323, official records, last said point being the true point of beginning; thence south 89° 57' 25" west 150.00 feet along the southerly line of said easement; thence south 0° 02' 35" east 200.00 feet; thence north 89° 57' 25" east 200.00 feet; thence north 0° 02' 35" west 200.00 feet; thence south 89° 57' 25" west 50.00 feet to the true point of beginning.

EXHIBIT E

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.200 - Area 18—Recreation Park.

Area 18 is that portion of the City described as follows:

That portion of Lot A, Tract No. 5884, in the City as per map recorded in Book 62, page 38 of maps in the Office of the County Recorder, more particularly described as follows: Beginning at the southeast corner of Block 131 of the Alamitos Tract as shown on said map; thence south 43° 53' 45" east 41.63 feet, along the westerly line of said Tract No. 5884, to the centerline of Seventh Street; thence north 89° 59' 29" east 1,506.08 feet, along the centerline of the public thoroughfare known as Seventh Street; thence North 0° 00' 31" west, 190 feet, at right angles to last said centerline, to the true point of beginning of this description; thence continuing north 0° 00' 31" west, 150.00 feet; thence north 89° 59' 29" east, 290.40 feet; thence south 0° 00' 31" east, 150.00 feet; thence south 89° 59' 29" west, 290.40 feet to the true point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.210 - Area 19—Airport central and east.

Area 19 is that portion of the City described as follows:

That portion of Lot 52, Tract No. 8084, as per map recorded in Book 171, pages 24 to 30 inclusive, of maps in the Office of the County Recorder, as more particularly bounded and described, using bearings based on the California Coordinate System Zone VII, as follows:

Beginning at a point marked by City monument No. 2906, a brass cap in concrete, having Zone VII coordinates of north 4,046,563.79 and east 4,244,900.30, said point being at the intersection of the westerly prolongation of the southerly line of said Lot 52 with the centerline of vacated Lakewood Boulevard and being formerly marked by City monument No. 1848; thence north 89° 51' 04" east to and along the southerly line of the aforesaid Lot 52, 400.00 feet; thence north 0° 06' 03" east, 323.00 feet to the true point of beginning; thence north 0° 06' 03" east, 344.12 feet; thence south 25° 20' 33" east, 146.01 feet; thence south 58.75 feet; thence south 49° 00' 00" west 102.13 feet; thence south 0° 06' 03" west, 6.24 feet; thence west 330.00 feet more or less to the true point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.220 - Area 20—Signal Hill, cemetery and north.

Area 20 is that portion of the City described as follows:

Beginning at the intersection of the north line of Willow Street with the west line of Orange Avenue, said point being in the boundary of the City; thence westerly along the boundary of the City, and following the various courses of said boundary, to its intersection with the east line of Walnut Avenue; thence east along the easterly prolongation of the last preceding course of said boundary line to a line 150 feet west of and parallel to the west line of Cherry Avenue; thence south along said parallel line to the north line of Spring Street, being a boundary line of the City; thence westerly along said boundary line and following its various courses to the point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.230 - Area 21—Signal Hill reservoir district.

Area 21 is that portion of the City described as follows:

EXHIBIT E

Beginning at the intersection of the southwesterly line of Alamitos Boulevard with a line 150 feet north of and parallel to the north line of Pacific Coast Highway (said southwesterly line of Alamitos Boulevard being also a boundary line of the City) thence northwesterly along said boundary of the City, and following the various courses of said boundary, to the northeasterly line of the Alamitos Tract, as per map recorded in Book 36, pages 37 to 44, miscellaneous records of Los Angeles County; thence southeasterly along said northeasterly line of Alamitos Tract to a line 300 feet east of and parallel to the east line of Termino Avenue; thence south along said parallel to a line 150 feet north of the aforesaid line 150 feet north of and parallel to the north line of Pacific Coast Highway; thence west along said parallel line to the point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.240 - Area 22—Amusement park.

Area 22 is that portion of the City described as follows:

Beginning at the southwest corner of Lot 1, Block E of the Strand No. 3, as shown on map recorded in Map Book 11, page 199 of maps, official records of said County; thence south along the Sly, prolongation of the west line of said Lot 1, Block E, 108.00 feet to a point being the true point of beginning for this description; thence continuing north 89° 52' 12" east 85.00 feet to a point; thence due south 260.00 feet to a point; thence south 89° 52' 12" west 85.00 feet to a point; thence due north 260.00 feet to the true point being located south of West Seaside Boulevard (96 South Chestnut Place).

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

12.08.250 - Area 23—Flood control—San Diego Freeway.

Area 23 is that portion of the City described as follows:

Beginning at an angle point in the boundary line of the City as same existed July 1, 1965, and being the most northerly corner of "Increment 48," Annexations of the City of Long Beach, filed with the Secretary of State on October 9, 1944 and the County Recorder on October 19, 1944; thence south 41° 52' 37" west, along said boundary line, 651.34 feet; thence north 15° 51' 40" west 806.75 feet to the most easterly corner of that certain parcel of land described in deed to Dominguez Estate Company recorded in Book D2313, page 982 of official records of said County Recorder; thence along the easterly line of said certain parcel of land north 10° 41' 04" west 810.51 feet to the most northerly corner of said certain parcel of land; thence north 3° 16' 34" east 73.35 feet along the westerly line of that certain parcel of land described as Parcel 1 in deed to the State recorded in Book 50974, page 160 of said official records to the northerly line of said last-mentioned certain parcel of land, thence northerly in a direct line to the southwesterly corner of that certain parcel of land described in the deed to the State recorded in Book D422, page 703 of said official records; thence northerly in a direct line to the most northerly corner of said last-mentioned certain parcel of land; thence northerly along a curve concave easterly and having a radius of 4,068.00 feet in the westerly line of a strip of land, 200 feet wide, described in Parcel 1 of the deed to the State recorded in Book 39027, page 384 of said official records to the southerly terminus of that certain course having a bearing of north 12° 52' 00" east in said last-mentioned westerly line; thence north 12° 52' 00" east along said last-mentioned westerly line to its intersection with the northeasterly line of the Pacific Electric Railroad right-of-way, 120.00 feet in width, as shown on map filed in Book 75, page 2 of record of surveys in the office of said Recorder; thence southeasterly along said northeasterly line of the railroad right-of-way as shown on County Surveyor's Map C-S B-181 to the intersection of the northwesterly line of Terrylynn Place and the southwesterly line of Del Mar Avenue, said intersection being a point in the boundary line of the City as same existed July 1, 1965; thence along said boundary line of 1965, southeasterly, westerly and northerly along its various courses to the point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.6 (part))

EXHIBIT E

12.08.255 - Area 24—Bellflower oil drill site.

Area 24 is that portion of the City described as follows:

In the City of Long Beach, County of Los Angeles, State of California, being that portion of the West Half of Section 1, T5S, R12W, San Bernardino Base and Meridian, described as follows:

Beginning at a point in the Los Angeles-Orange County line at the northerly terminus of that certain course shown on the map entitled "Exhibit "A", Superior Court Case No. 638660, *the City of Los Angeles, a Municipal Corporation, and the Department of Water and Power of the City of Los Angeles, Plaintiffs, versus E.A. Bryant, Jr., et al., Defendants*, said course having a bearing and distance of S16° 46' 45"E and 1,444.82 feet; thence along said course and County line S16° 46' 45"E, 1,020.00 feet; thence departing said County line at right angles S73° 13' 15"W 160.00 feet; thence northwesterly parallel to said County line N16° 45' 45"W 1,020.00 feet; thence N73° 13' 15"E a distance of 160.00 feet to the point of beginning.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-7838 § 1, 2003)

12.08.25 - Area 25— 2nd St and Studebaker Road drill site.

Area 25 is that portion of the City described as follows:

A portion of Parcel 3 of City of Long Beach Lot Line Adjustment no. 9704-08, recorded December 12, 1997 as instrument no. 97-1958951, official records of Los Angeles County, California, being a portion of the east one-half of section 2, township 5 south, range 12 west, in the Rancho Los Alamitos, as shown on partition map recorded in book 700, page 141 of deeds, in the office of the Los Angeles County Recorder, described as follows:

Beginning at the southwest corner of said parcel 5, being the southwest corner of said east one-half of section 2, and being the centerline intersection of Westminster Avenue (100 feet wide) and Studebaker Road (100 feet wide); thence north 00° 10' 03" east, along the westerly line of said parcel 3, being the westerly line of said east one-half of section 2, and also being said centerline of Studebaker Road, a distance of 400.00 feet, thence south 89° 50' 17" east, a distance of 493.10 feet; thence south 64° 14' 06" east, a distance of 75.63 feet; thence south 00° 52' 38" west, a distance of 367.39 feet, to the southerly line of said parcel 3, being the southerly line of said east one-half of section 2, and also being said centerline of Westminster Avenue. Thence north 89° 60' 17" west along said southerly line and said centerline, a distance of 556.57 feet, to the point of beginning.

12.08.260 - Boundary change—General.

To change an area boundary or create or delete an oil operating area shall require City Council action in accordance with the procedures of Sections 12.08.260 through 12.08.320. However, the City Council shall not act prior to receiving a recommendation thereon from the Planning Commission.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.7(a))

12.08.270 - Boundary change—Initiation.

Authority to initiate a change in an area boundary or create or delete an oil operating area shall be vested in the City Council (by minute order), in the Director (by transmittal to the Planning Commission), or by application to the Planning Commission through the Director made by the owner of surface drilling rights in the area encompassed by the creation, addition or deletion, or by the agent of such owner.

EXHIBIT E

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.7(b))

12.08.280 - Boundary changes—Notice.

Notice of the public hearing shall be provided by mailing a notice to all owners of property within three hundred feet (300') of the subject drilling site and by posting on the site. The owner of the properties entitled to receive shall be as provided on the latest equalized assessment roll of the County. The notice(s) to be posted shall be posted within ten feet (10') of any street property line and shall be provided on each street frontage with not less than one (1) notice posted for each three hundred feet (300') of street frontage and equally spaced along the frontage. If no street frontage exists, one (1) notice shall be posted at a conspicuous location on the site. Notices shall be mailed and posted not less than ten (10) days prior to the hearing date. Failure of any property owner to receive or failure of any member of the public to see the notice shall not invalidate any action taken on a request. Failure to mail notices or failure to post notices shall result in continuance of the hearing.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.7(c))

12.08.290 - Boundary change—Planning Commission recommendation.

Within thirty (30) days following a Planning Commission action to recommend a change in an area boundary or to create or delete an oil operating area that recommendation shall be transmitted to the City Clerk for presentation to the City Council. Such recommendation shall give the reasons therefor and shall also disclose whether the decision has been concurred in by all the members of the Planning Commission who are in attendance at the hearing, and in the event the decision has not been concurred in by all such members, the view of the minority of such members shall also be disclosed, except that any action to deny a proposed change to the area boundary or to create or delete an oil operating area need not be transmitted unless the request was initiated by the City Council. A recommendation to deny a change, creation, or deletion may be appealed to the City Council.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.7(d))

12.08.300 - Boundary change—Appeal of Planning Commission denial.

The private applicant requesting a change, creation, or deletion may appeal to the City Council the Planning Commission's recommended denial by filing an appeal with the City Clerk within ten (10) days after the Commission's action. Upon receipt of an appeal, the City Clerk shall notify the Director and request the transmittal of the Planning Commission's recommendation to the City Council.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.7(e))

12.08.310 - Boundary change—Council action required.

Upon receipt of the recommendation of the Planning Commission, the City Clerk shall set a time for consideration of the matter by the City Council and shall notify the Planning Commission, through the Director and the private applicant, where applicable, of the date and time of such hearing. The Planning Commission may delegate to the Director authority to orally present the Planning Commission recommendation. The decision of the City Council shall be final. Any action by the City Council which concurs with the Planning Commission recommendation shall require a simple majority of the Councilmembers present. Any action by the City Council which overrules a Planning Commission recommendation shall require a two-thirds (2/3) majority of the full Council. If the Council fails to arrive at a decision, the proposal or request shall automatically be continued to the next regularly scheduled Council meeting. The failure of the Council to reach a decision at the subsequent hearing shall be deemed an approval of the Planning Commission's recommendation.

EXHIBIT E

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.7 (f))

12.08.320 - Boundary change—Findings required.

In all cases the Planning Commission and the City Council shall be required to make the following findings of fact before changing the boundary of, creating or deleting an oil operating area:

- A. The change, creation or deletion will not adversely affect the character, livability or appropriate development of surrounding community;
- B. The change, creation or deletion is necessary to produce the petroleum envisioned to be produced from the site, and the petroleum cannot feasibly be reproduced from other sites within oil operating areas by unitization or production agreements, slant drilling or other mechanism; and
- C. The change, creation or deletion will not unreasonably hinder production of existing petroleum reserves.

([ORD-16-0027](#) § 1(Exh. A), 2016; Ord. C-5575 § 2 (part), 1980: prior code § 3300.7 (g))

12.08.100 - AREA 8—ALAMITOS HEIGHTS AND FLATS.

AREA 8 IS THAT PORTION OF THE CITY OF LONG BEACH, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE CENTERLINE OF SANTIAGO AVENUE, (60 FEET WIDE), AND THE SOUTHERLY LINE OF COLORADO STREET, (60 FEET WIDE);

THENCE EAST ALONG THE SOUTHERLY LINE OF COLORADO STREET TO THE BOUNDARY LINE OF THE CITY OF LONG BEACH AS ESTABLISHED BY INCREMENT 11 OF ANNEXATION TO THE CITY OF LONG BEACH, FILED WITH THE SECRETARY OF THE STATE OF CALIFORNIA, DECEMBER 17, 1923;

THENCE SOUTHERLY AND EASTERLY ALONG THE BOUNDARY LINE OF THE CITY OF LONG BEACH AS ESTABLISHED BY SAID INCREMENT 11 AND FOLLOWING ITS VARIOUS COURSES TO THE MOST SOUTHERLY CORNER OF LOT 1, TRACT NO. 1077, AS PER MAP RECORDED IN BOOK 18, PAGE 195 OF MAPS, RECORDS OF LOS ANGELES COUNTY;

THENCE NORTHWESTERLY ALONG THE SOUTHERLY LINE OF SAID LOT 1 TO THE INTERSECTION OF A LINE 800 FEET NORTHEASTERLY OF AND PARALLEL TO THE NORTHEASTERLY LINE OF THE 200-FOOT RIGHT-OF-WAY OF THE PACIFIC ELECTRIC RAILWAY COMPANY'S NEWPORT BEACH LINE;

THENCE NORTHWESTERLY ALONG SAID PARALLEL LINE TO THE NORTHWESTERLY LINE OF PARCEL 1 OF THE PROPERTY CONVEYED TO THE CITY BY DEED RECORDED IN BOOK 4654, PAGE 163, OF OFFICIAL RECORDS IN THE OFFICE OF THE COUNTY RECORDER, HAVING A BEARING OF SOUTH 74° 39' 30" WEST AND A LENGTH OF 401.30 FEET;

THENCE SOUTH 74° 39' 30" WEST 95.53 FEET TO AN ANGLE IN SAID PARCEL 1;

THENCE SOUTH 56° 04' 30" WEST, 167.47 FEET TO THE MOST WESTERLY CORNER OF SAID PARCEL 1;

THENCE NORTH 56° 04' 25" WEST 311.34 FEET TO A POINT IN THE EASTERLY LINE OF PARCEL 2 OF SAID PROPERTY CONVEYED TO THE CITY;

THENCE SOUTH 80° 07' 11" WEST, 102.51 FEET TO A POINT IN THE SOUTHWESTERLY LINE OF SAID PARCEL 2;

THENCE NORTH 21° 42' 40" WEST 309.95 FEET ALONG SAID SOUTHWESTERLY LINE OF PARCEL 2 TO A POINT IN A CURVE CONCAVE TO THE SOUTH AND HAVING A RADIUS OF 1884.91 FEET. A RADIAL LINE PASSING THROUGH SAID POINT OF CURVE HAVING A BEARING OF NORTH 3° 43' 54" EAST;

THENCE SOUTHEASTERLY ALONG SAID CURVE AN ARC DISTANCE OF 503.52 FEET TO THE END OF SAID CURVE, A RADIAL LINE PASSING THROUGH THE END OF SAID CURVE HAVING A BEARING OF NORTH 19° 02' 14.7" EAST; THENCE SOUTH 70° 57' 45.3" EAST 122.99 FEET TO THE CENTERLINE OF SANTIAGO AVENUE, 60 FEET WIDE;

THENCE NORTHERLY ALONG SAID CENTERLINE OF SANTIAGO AVENUE TO THE **POINT OF BEGINNING.**

PROVIDED, HOWEVER, THAT IT IS UNLAWFUL HEREAFTER TO DRILL ANY NEW WELL OR TO ERECT ANY DERRICK WITHIN THAT PORTION OF AREA 8 DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE CENTERLINE OF SANTIAGO AVENUE (60 FEET WIDE) WITH THE SOUTH LINE OF COLORADO STREET (60 FEET WIDE);

THENCE EAST ALONG SAID SOUTH LINE OF COLORADO STREET TO THE CENTERLINE OF MANILA AVENUE (60 FEET WIDE);

THENCE SOUTH 250 FEET ALONG SAID CENTERLINE OF MANILA AVENUE;

THENCE WEST ALONG A LINE 250 FEET SOUTH OF AND PARALLEL TO SAID SOUTH LINE OF COLORADO STREET TO THE WESTERLY LINE OF PARCEL 2 OF THE LAND CONVEYED TO THE CITY, BY DEED RECORDED JULY 17, 1926, IN BOOK 4653, PAGE 163, OF OFFICIAL RECORDS IN THE OFFICE OF THE COUNTY RECORDER;

THENCE NORTHWESTERLY ALONG SAID WESTERLY LINE OF PARCEL 2 TO THE SOUTH LINE OF COLORADO STREET (60 FEET WIDE);

THENCE EAST ALONG SAID SOUTH LINE OF COLORADO STREET TO THE **POINT OF BEGINNING.**

IN THE CITY OF LONG BEACH, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA,
AND IS DESCRIBED AS FOLLOWS:

PARCELS 4, 5 AND 6, AS SHOWN ON PARCEL MAP NO. 19212, AS PER MAP FILED IN
BOOK 260, PAGES 93 AND 94 OF PARCEL MAPS, IN THE OFFICE OF THE RECORDER
OF SAID COUNTY;

EXCEPT THEREFROM ALL OIL, GAS, PETROLEUM AND OTHER HYDROCARBON
SUBSTANCES CONVEYED BY VARIOUS INSTRUMENTS BOTH RECORDED AND
UNRECORDED ALL CONFIRMED AND CLARIFIED BY DEED FROM FRED H. BIXBY
RANCH COMPANY, A CALIFORNIA CORPORATION, RECORDED SEPTEMBER 16,
1971 AS INSTRUMENT NO. 3355, IN BOOK D 5193 PAGE 959 OF OFFICIAL RECORDS,
WHICH DEED RECITES THAT THE GRANTEEES, THEIR HEIRS, SUCCESSORS AND
ASSIGNS SHALL HAVE NO RIGHT TO ENTER UPON THE SURFACE OF THE
PROPERTY OR USE THE PROPERTY OR ANY PORTION THEREOF ABOVE A PLANE
PARALLEL TO AND 500 FEET BELOW THE PRESENT SURFACE THEREOF WITHOUT
THE EXPRESS APPROVAL IN WRITING OF THE GRANTOR.

SUBJECT TO COVENANTS, CONDITIONS, RESTRICTIONS, RESERVATIONS,
EASEMENTS AND RIGHTS-OF-WAY OF RECORD IF ANY.

A.P.N.: 7237-020-043, 044, 045.

LCWA Site – Proposed (New) Oil Area _____

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

A PORTION OF PARCEL 3 OF CITY OF LONG BEACH LOT LINE ADJUSTMENT NO. 9704-08, RECORDED DECEMBER 12, 1997 AS INSTRUMENT NO. 97-1958951, OFFICIAL RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, BEING A PORTION OF THE EAST ONE-HALF OF SECTION 2, TOWNSHIP 5 SOUTH, RANGE 12 WEST, IN THE RANCHO LOS ALAMITOS, AS SHOWN ON PARTITION MAP RECORDED IN BOOK 700, PAGE 141 OF DEEDS, IN THE OFFICE OF THE LOS ANGELES COUNTY RECORDER, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID PARCEL 5, BEING THE SOUTHWEST CORNER OF SAID EAST ONE-HALF OF SECTION 2, AND BEING THE CENTERLINE INTERSECTION OF WESTMINSTER AVENUE (100 FEET WIDE) AND STUDEBAKER ROAD (100 FEET WIDE);

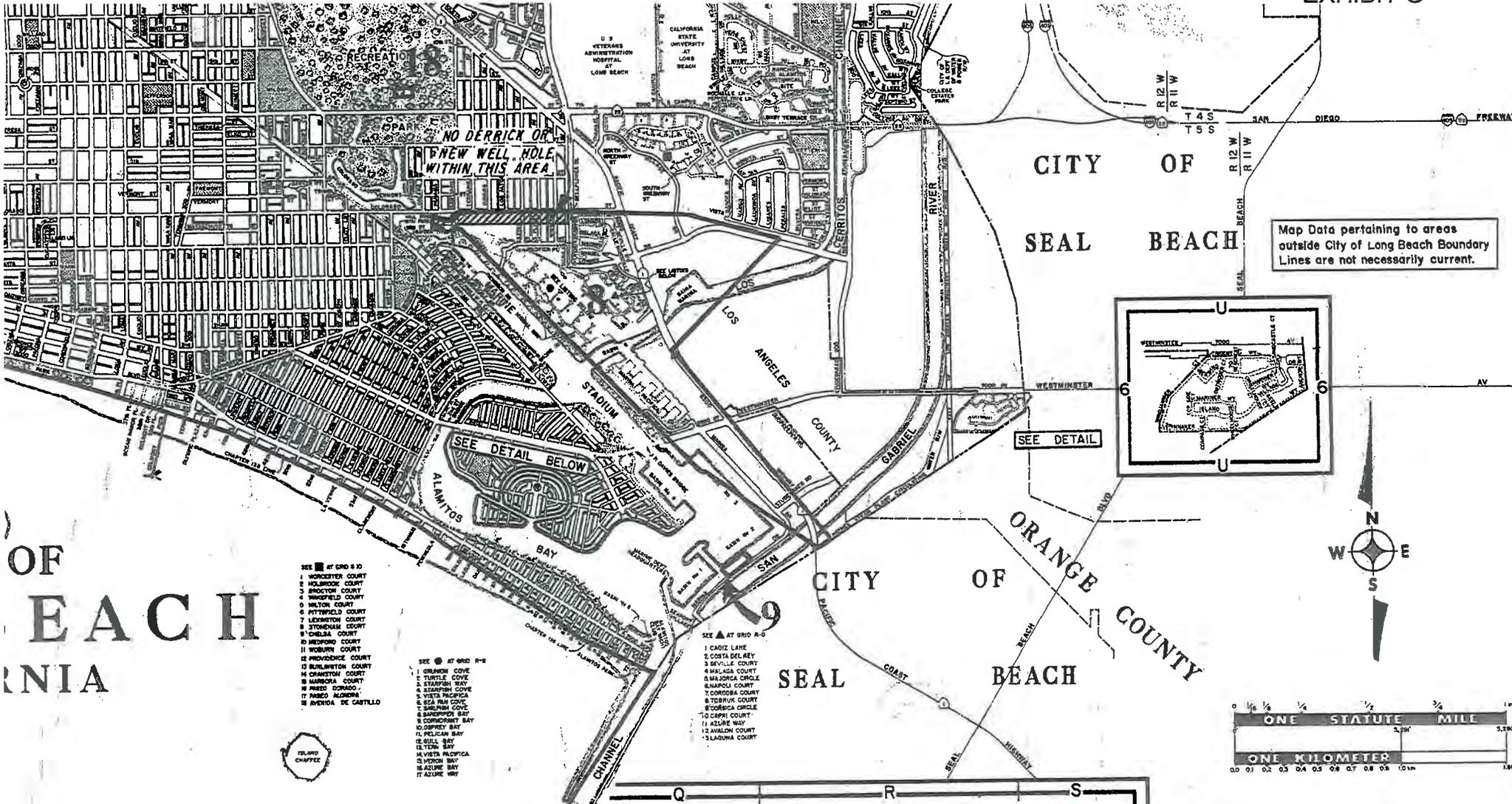
THENCE NORTH 00° 10' 03" EAST, ALONG THE WESTERLY LINE OF SAID PARCEL 3, BEING THE WESTERLY LINE OF SAID EAST ONE-HALF OF SECTION 2, AND ALSO BEING SAID CENTERLINE OF STUDEBAKER ROAD, A DISTANCE OF 400.00 FEET,

THENCE SOUTH 89° 50' 17" EAST, A DISTANCE OF 493.10 FEET;

THENCE SOUTH 64° 14' 06" EAST, A DISTANCE OF 75.63 FEET;

THENCE SOUTH 00° 52' 38" WEST, A DISTANCE OF 367.39 FEET, TO THE SOUTHERLY LINE OF SAID PARCEL 3, BEING THE SOUTHERLY LINE OF SAID EAST ONE-HALF OF SECTION 2, AND ALSO BEING SAID CENTERLINE OF WESTMINSTER AVENUE.

THENCE NORTH 89° 60' 17" WEST ALONG SAID SOUTHERLY LINE AND SAID CENTERLINE, A DISTANCE OF 556.57 FEET, TO THE POINT OF BEGINNING.



Map Data pertaining to areas outside City of Long Beach Boundary Lines are not necessarily current.

OF
EACH
NIA

- SEE ■ AT GRID 8-10
- 1 WORCESTER COURT
 - 2 HILBROOK COURT
 - 3 BRONX COURT
 - 4 WILSON COURT
 - 5 PITTSFIELD COURT
 - 6 LEONARD COURT
 - 7 STONEHAM COURT
 - 8 CHELSEA COURT
 - 9 MENDOCINO COURT
 - 10 WOBURN COURT
 - 11 PROVIDENCE COURT
 - 12 BURLINGTON COURT
 - 13 CRANSTON COURT
 - 14 MARBORA COURT
 - 15 WOOD CHAPPEL
 - 16 PASCO ALONDA
 - 17 AVENIDA DE CASTILLO

- SEE ● AT GRID 8-9
- 1 ORLOND COVE
 - 2 TURTLE COVE
 - 3 STARFISH BAY
 - 4 SEASIDE COVE
 - 5 VISTA PACIFICA
 - 6 SEA PALM COVE
 - 7 SARDINIA COVE
 - 8 MONTECARLO BAY
 - 9 CONCOMANT BAY
 - 10 CORREY BAY
 - 11 PELICAN BAY
 - 12 SULL BAY
 - 13 LYTON BAY
 - 14 VISTA PACIFICA
 - 15 LYTON BAY
 - 16 AZURE BAY
 - 17 AZURE WHF

- SEE ▲ AT GRID 8-8
- 1 CADIZ LANE
 - 2 COSTA DEL REY
 - 3 BEVILLE COURT
 - 4 MALAGA COURT
 - 5 MALIBU CIRCLE
 - 6 NAPOLI COURT
 - 7 CORONA COURT
 - 8 TORREUS COURT
 - 9 GEORGIA CIRCLE
 - 10 CAPPI COURT
 - 11 AZURE WAY
 - 12 AVALON COURT
 - 13 LADANA COURT

Existing Oil Map Areas



Proposed Oil Map Amendment

Application No. 1601-05 Council District 3

 Existing Oil Area 8
 Proposed Oil Area 8

 To be Added to Existing Oil Area 8
 Zoning Code: PD-1 Subarea 25

 Proposed Oil Area 25
 Zoning Code; PD-1 Subarea 19



EXHIBIT F

OIL MAP AMENDMENT FINDINGS

(Synergy Oil Field at 6433 E. 2nd Street, City property at the southeast corner of Studebaker Road and 2nd Street, Pumpkin Patch Site at 6701 E. Pacific Coast Highway, and the Los Cerritos Wetlands Authority site at the northeast corner of Studebaker Road and 2nd Street)

Application No. 1601-05 (C and D)

Date: January 16, 2018

Section 12.08.320 of the Long Beach Municipal Code requires that the Planning Commission and the City Council make the following findings of fact before changing the boundary of, creating or deleting an oil operating area. These findings and staff analysis are presented for consideration, adoption and incorporation into the record of proceedings:

A. THE CHANGE, CREATION OR DELETION WILL NOT ADVERSELY AFFECT THE CHARACTER, LIVABILITY OR APPROPRIATE DEVELOPMENT OF SURROUNDING COMMUNITY;

Chapter 12.08 of the Long Beach Municipal Code currently includes Oil Area 8 – Alamitos Heights and Flats. The southwestern most portion of the Area extends to an area adjacent to the Pumpkin Patch site. The project proposes to include the Pumpkin Patch site as part of Oil Area 8. The Pumpkin Patch site is an undeveloped site and includes existing oil wells, which predate the current Oil Areas. The proposed oil wells on the Pumpkin Patch would be located at the rear of the site, which is away from public view and also not proposed with any development. The project also proposes to designate the LCWA site as a new Oil Area. The LCWA site is adjacent to the Plain All American and AES Power Plan sites, therefore exhibiting a long-standing industrial character. The LCWA site has been used for storage of industrial manufacturing items and has a history of industrial use. It is not adjacent to any site planned for development nor adjacent to any residential areas. As such, the proposed inclusion of the Pumpkin Patch site in Oil Area 8 and the creation of a new oil area for the LCWA site will not adversely affect the character, livability, or appropriate development of the surrounding community.

B. THE CHANGE, CREATION OR DELETION IS NECESSARY TO PRODUCE THE PETROLEUM ENVISIONED TO BE PRODUCED FROM THE SITE, AND THE PETROLEUM CANNOT FEASIBLY BE REPRODUCED FROM OTHER SITES WITHIN OIL OPERATING AREAS BY UNITIZATION OR PRODUCTION AGREEMENTS, SLANT DRILLING OR OTHER MECHANISM; AND

The Synergy Oil Field and the City Property currently include active oil wells, but are wetlands in nature. The proposes to phase out the wells on these sites over time and replace them with newly-drilled wells on the Pumpkin Patch and LCWA

EXHIBIT F

sites. Allowing the proposed Oil Map changes facilitates the production of petroleum envisioned from the area. Due to their industrial nature, located away from residential areas and otherwise not adjacent to non-industrial development, these sites are the most feasible sites for oil drilling in the immediate area. Other areas of the City have developed with active residential uses and urban uses, thereby precluding the introduction of new oil wells without negative impacts to those existing uses.

C. THE CHANGE, CREATION OR DELETION WILL NOT UNREASONABLY HINDER PRODUCTION OF EXISTING PETROLEUM RESERVES.

The proposed Oil Map Amendment would designate the Pumpkin Patch site and the LCWA site as Oil Areas, which would allow approval of new oil wells. This is in anticipation of the long-term phase out of the currently-active wells on the Synergy Oil Field and City Property. The issuance of oil wells is managed and monitored by the Long Beach Gas and Oil Department, who manages the production of petroleum in the City. Therefore, the addition of Oil Areas would not hinder production of existing petroleum reserves.



VICINITY MAP



PUMPKIN PATCH SITE
LCWA SITE
SYNERGY OIL FIELD SITE
CITY MARKETPLACE MARSH (33 ACRES) SITE

LONG BEACH, CALIFORNIA

SCALE: 1" = 300'

SHEET INDEX

- AA-1-COVER PAGE
- AA-2-PROJECT COMPONENTS SITE PLAN
- AA-3-OIL AMENDMENT MAP
- AA-4-NOTES

PUMPKIN PATCH SITE:

- AA-SP-1 SITE PLAN
- AA-SP-2 SECTIONS
- AA-SP-3 UTILITIES AND EASEMENT PLAN
- AA-A-1 BUILDING PLAN AND ROOF PLAN
- AA-A-2 & 3 BUILDING ELEVATIONS
- AA-L-1 LANDSCAPE CONCEPT PLAN
- AA-L-2 HABITAT RESTORATION MAP
- AA-P-1 SITE PHOTOS

LCWA SITE:

- BB-SP-1 SITE PLAN
- BB-SP-2 UTILITIES AND EASEMENT PLAN
- BB-L-1 & 2 LANDSCAPE PLANS
- BB-P-1 SITE PHOTOS

SYNERGY OIL FIELD SITE

- CC-SP-1 SITE PLAN - OVERALL
- CC-SP-2 SITE PLAN - VISITOR'S CENTER
- CC-SP-3 UTILITIES AND EASEMENT PLAN
- CC-A-1 BUILDING PLAN AND ELEVATIONS - VISITOR'S CENTER
- CC-L-1 LANDSCAPE CONCEPT PLAN - VISITOR'S CENTER
- CC-L-2 HABITAT RESTORATION PLAN PHASE 1
- CC-L-3 HABITAT RESTORATION PLAN PHASE 2
- CC-P-1 SITE PHOTOS

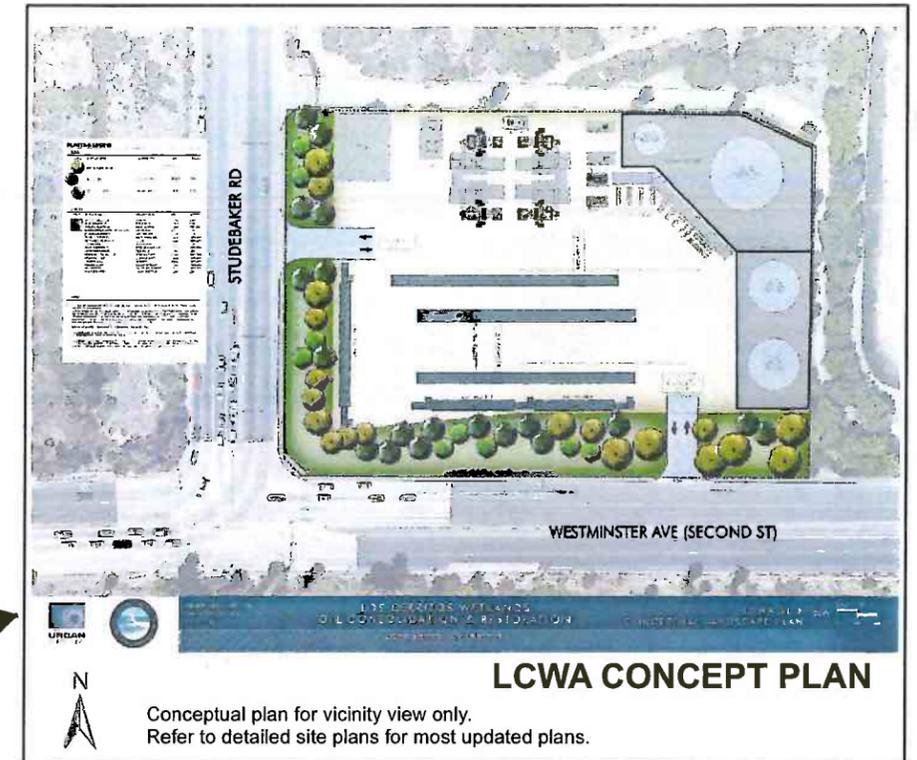
CITY MARKETPLACE MARSH (33 ACRES) SITE

- DD-SP-1 CITY 33 ACRE SITE PLAN
- DD-SP-2 PIPELINE CONNECTION
- DD-SP-3 PIPELINE CROSS SECTION
- DD-P-1 SITE PHOTOS

LEGEND:

- ASSESSOR PARCEL LINES
- OIL WELL TO BE ABANDONED PER REMOVAL PLAN
- PROPOSED OIL PIPE BUNDLE OPTION 1
- PUMPKIN PATCH SITE
- LCWA SITE
- SYNERGY OIL FIELD SITE
- CITY MARKETPLACE MARSH (33 ACRES) SITE
- HABITAT PRESERVATION AND RESTORATION





LOS CERRITOS WETLANDS
OIL CONSOLIDATION AND RESTORATION PROJECT
Projects Components Site Plan

GLENN LUKOS ASSOCIATES

AA-2

OIL MAP AMENDMENT
DATE: 10/23/15

LCWA SITE

PUMPKIN
PATCH SITE



NOTES

1. IN ACCORDANCE WITH SEADIP SUBAREAS 11A (H), AND 25 AND 26(M), PLEASE INCLUDE BICYCLE TRAILS ON BOTH SIDES OF SECOND STREET/WESTMINSTER AVENUE, AND ALONG THE NORTH SIDE OF PACIFIC COAST HIGHWAY, SOUTH OF STUDEBAKER ROAD. THIS BIKE TRAILS SHALL BE DEDICATED TO THE CITY. ALSO, A BIKE LANE SHALL BE IMPROVED ALONG THE NORTH SIDE OF WESTMINSTER AVENUE, ALONG THE SOUTH FRONTAGE OF THE LCWA SITE. PUBLIC WORKS IS CURRENTLY STUDYING THE BICYCLE TRAIL DESIGN; AS SUCH, ONGOING COORDINATION WITH PUBLIC WORKS WILL NEED TO OCCUR TO ENSURE PROPER DEDICATIONS, RIGHT-OF-WAY WIDTHS, AND IMPROVEMENT CRITERIA.
2. IN ACCORDANCE WITH SEADIP SUBAREAS 25 AND 26(B), THE DEVELOPERS WILL BE REQUIRED TO CONTRIBUTE TO ANY IMPROVEMENTS NECESSARY TO CROSS THE SAN GABRIEL RIVER REGIONAL BIKEWAY FROM THE EAST LEVEE TO THE WEST LEVEL OF THE RIVER AT WESTMINSTER AVENUE, TO THE SATISFACTION OF THE DIRECTOR OF DEVELOPMENT SERVICES AND THE CITY ENGINEER.
3. FULL ADA ACCESSIBILITY COMPLIANCE WITHIN THE ADJACENT PUBLIC RIGHT-OF-WAY WILL BE CONSTRUCTED TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS. ADDITIONALLY, IF ANY DEDICATION IS NECESSARY THAT WILL BE ADDRESSED DURING PLAN CHECKING PROCESS.
4. THE DEVELOPER SHALL PROVIDE EASEMENTS TO THE CITY OF LONG BEACH FOR ANY CITY FACILITIES INCLUDING TRAFFIC SIGNAL CONTROLS, SIGNAGE, REQUIRED SLOPES, BUS STOPS, REFUSE COLLECTION ACCESS, AND ANY OTHER PUBLIC NECESSITIES, TO THE SATISFACTION OF THE INTERESTED DEPARTMENT OR AGENCY.
5. THE DEVELOPER SHALL PROVIDE THE NECESSARY STORM DRAIN EASEMENTS TO THE COUNTY OF LOS ANGELES OR SUCCESSOR. IF ADDITIONAL STORM DRAIN EASEMENTS ARE REQUIRED BY THE COUNTY OF LOS ANGELES AND PROVIDED BY SEPARATE INSTRUMENT, RECORDED COPIES OF SAME SHALL BE PROVIDED TO THE DIRECTOR OF PUBLIC WORKS FOR OUR RECORDS.
6. UNLESS APPROVED BY THE DIRECTOR OF PUBLIC WORKS, EASEMENTS SHALL NOT BE GRANTED TO THIRD PARTIES WITHIN AREAS PROPOSED TO BE GRANTED, DEDICATED, OR OFFERED FOR DEDICATION TO THE CITY OF LONG BEACH FOR PUBLIC STREETS, ALLEYS, UTILITY OR OTHER PUBLIC PURPOSES UNTIL THE FINAL MAP FILING WITH THE COUNTY RECORDER. IF EASEMENTS ARE GRANTED AFTER THE DATE OF TENTATIVE MAP APPROVAL AND PRIOR TO FINAL MAP RECORDATION, A NOTICE OF SUBORDINATION MUST BE EXECUTED BY THE THIRD-PARTY EASEMENT HOLDER PRIOR TO THE FILING OF THE FINAL MAP FILING.
7. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE MAINTENANCE, REPAIR AND REPLACEMENT OF OFF-SITE IMPROVEMENTS ABUTTING THE PROJECT BOUNDARY DURING CONSTRUCTION OF THE ON-SITE IMPROVEMENTS UNTIL FINAL INSPECTION OF THE ON-SITE IMPROVEMENTS BY THE CITY. ANY SUCH OFF-SITE IMPROVEMENTS FOUND DAMAGED BY THE CONSTRUCTION OF THE ON-SITE IMPROVEMENTS SHALL BE REPAIRED OR REPLACED BY THE DEVELOPER TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS
8. THE DEVELOPER SHALL REMOVE UNUSED DRIVEWAYS AND REPLACE WITH FULL-HEIGHT CONCRETE CURB, CURB GUTTER AND SIDEWALK TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS. SIDEWALK IMPROVEMENTS SHALL BE CONSTRUCTED PER PUBLIC WORKS STANDARDS WITH PORTLAND CEMENT CONCRETE. THE SIZE AND CONFIGURATION OF ALL PROPOSED DRIVEWAYS SERVING THE PROJECT SITE SHALL BE SUBJECT TO REVIEW AND APPROVAL OF THE CITY TRAFFIC ENGINEER. CONTACT THE TRAFFIC AND TRANSPORTATION DIVISION AT (562) 570-6331 TO REQUEST ADDITIONAL INFORMATION REGARDING DRIVEWAY CONSTRUCTION REQUIREMENTS.
9. THE DEVELOPER SHALL PROVIDE FOR THE RESETTLE TO GRADE OF EXISTING MANHOLES, PULLBOXES, AND METERS IN CONJUNCTION WITH THE REQUIRED OFF-SITE IMPROVEMENTS TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.
10. THE STREET TREES AND GROUND COVER REQUIRED IN CONNECTION WITH THIS DEVELOPMENT SHALL BE ACCOMPLISHED PER LONG BEACH MUNICIPAL CODE CHAPTER 21.42.060. THE DEVELOPER AND/OR SUCCESSORS SHALL PRIVATELY MAINTAIN ALL STREET TREES AND LANDSCAPING ADJACENT TO THE DEVELOPMENT SITE AS REQUIRED IN CONNECTION WITH THIS DEVELOPMENT
11. THE DEVELOPER SHALL CONTACT THE STREET TREE DIVISION OF THE DEPARTMENT OF PUBLIC WORKS, AT (562) 570-2770, PRIOR TO BEGINNING ANY TREE REMOVAL OR TREE PLANTING OR LANDSCAPING WORK. THE STREET TREE DIVISION WILL ASSIST WITH THE SIZE, TYPE AND MANNER IN WHICH THE STREET TREES ARE TO BE INSTALLED.
12. ALL PIPELINES PROPOSED FOR THIS DEVELOPMENT TO BE INSTALLED WITHIN THE PUBLIC RIGHTS-OF-WAY REQUIRES AN EXCAVATION/FACILITY PIPELINE PERMIT ISSUED BY THE DEPARTMENT OF PUBLIC WORKS. CONTACT RUSS CAVENESE OF CONSTRUCTION SERVICES FOR INFORMATION ABOUT EXCAVATION PERMITS AT (562) 570-6530
13. PUBLIC IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PUBLIC WORKS STANDARDS PER APPROVED PLANS. SIDEWALK IMPROVEMENTS SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE (PCC) TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS. ALL SIDEWALK IMPROVEMENT, CURB AND CURB GUTTER REMOVAL AND/OR CURRENT TO NEW SIDEWALK TIE-IN LIMITS SHALL CONSIST OF ENTIRE PANEL REPLACEMENTS OR FROM JOINT LINE TO JOINT LINE.
14. THE DEVELOPER SHALL PROVIDE TO THE DEPARTMENT OF PUBLIC WORKS CIVIL ENGINEER PREPARED OFF-SITE IMPROVEMENT PLANS FOR REVIEW AND APPROVAL FOR ALL OFF-SITE IMPROVEMENT CONDITIONED ON THE DEVELOPMENT.
15. THE DEVELOPER SHALL REPAINT ALL TRAFFIC MARKINGS OBLITERATED OR DEFACED BY CONSTRUCTION ACTIVITIES TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
16. THE DEVELOPER SHALL CONTACT THE TRAFFIC & TRANSPORTATION BUREAU, AT (562) 570-6331, TO MODIFY THE EXISTING CURB MARKING ZONES, ADJACENT TO THE PROJECT SITE.
17. ALL TRAFFIC CONTROL DEVICE INSTALLATIONS, INCLUDING PAVEMENT MARKINGS OF THE PRIVATE STREETS AND PARKING LOT(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES(MUTCD), 2013 OR CURRENT EDITION (I.E., WHITE PARKING STALLS, STOP SIGNS, ENTRY TREATMENT SIGNAGE, HANDICAPPED SIGNAGE, ETC.).
18. THE DEVELOPER SHALL PROVIDE FOR PEDESTRIAN SIDEWALK IMPROVEMENT ADJACENT TO THE SYNERGY OIL FIELD SITE ALONG PACIFIC COAST HIGHWAY, SECOND STREET AND STUDEBAKER ROAD SUFFICIENT FOR A SAFE PUBLIC SIDEWALK TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS
19. THE DEVELOPER SHALL CONSTRUCT AN ADA COMPLIANT SIDEWALK CURB RAMP WITH TRUNCATED DOMES ON THE NORTH SIDE OF 2ND STREET (WESTMINSTER AVENUE) AT THE SHOPKEEPER ROAD CROSSWALK CROSSING 2ND STREET, AND ALSO THE NORTHWEST CORNER OF WESTMINSTER AVENUE AND STUDEBAKER ROAD
20. THE DEVELOPER SHALL IMPROVE THE FADED CROSSWALK STRIPPING WITH NEW THERMOPLASTIC PAINT TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER
21. THE DEVELOPER SHALL EXTEND THE 110' WIDE STUDEBAKER ROAD ROW ADJACENT TO THE WESTERLY PROPERTY LINE OF THE PUMPKIN PATCH SITE, AND PROVIDE ACCESS TO SECOND STREET. THE DEVELOPER SHALL SUBMIT DETAILED CONSTRUCTION PLANS SHOWING THE ACCESS WAY FOR REVIEW AND APPROVAL BY PUBLIC WORKS AND TO THE SATISFACTION OF THE CITY ENGINEER
22. THE DEVELOPER SHALL PROVIDE FOR PEDESTRIAN SIDEWALK IMPROVEMENT ALONG THE RIGHT-OF-WAY (ROW) ALONG WESTMINSTER AVENUE (SECOND STREET) AND STUDEBAKER ROAD ADJACENT TO THE LCWA SITE. THE DEVELOPER SHALL ALSO CONSTRUCT ADA COMPLIANT CROSSWALK CURB RAMPS WITH TRUNCATED DOMES ON THE CORNER OF WESTMINSTER AVENUE AND STUDEBAKER ROAD, ALL TO THE SATISFACTION OF THE CITY ENGINEER
23. THE DEVELOPER SHALL PROVIDE FOR PEDESTRIAN SIDEWALK IMPROVEMENT ALONG THE RIGHT-OF-WAY (ROW) ALONG WESTMINSTER AVENUE (SECOND STREET).
24. FIRE DEPARTMENT ACCESS ROADS WILL BE REQUIRED FOR THIS PROJECT. THE FOLLOWING MINIMUM SPECIFICATIONS OR STANDARDS ARE REQUIRED FOR THE ACCESS ROAD:
 - 26 FEET WIDE,
 - 28 FEET INSIDE TURNING RADIUS,
 - 15 FEET OF CLEAR AND UNOBSTRUCTED VERTICAL HEIGHT,
 - ALL WEATHER RESISTANT SURFACE,
 - HAMMERHEAD TURNAROUND AREA SHALL MEET THE REQUIREMENTS IN THE CFC APPENDIX D,
 - TRAFFIC CALMING DEVICES (E.G., SPEED BUMPS) ARE PROHIBITED UNLESS SPECIFICALLY APPROVED BY THE FIRE DEPARTMENT, AND DESIGN FOR H20 (80,000 LBS) LOADING

PUMPKIN PATCH SITE
LCWA SITE
SYNERGY OIL FIELD SITE
CITY MARKETPLACE MARSH (33 ACRES) SITE

LONG BEACH, CALIFORNIA



STUDEBAKER ROAD

22' HIGH WALL

2-STORY OFFICE

WAREHOUSE

NEW LONG BEACH WELCOME MONUMENT

22' HIGH WALL

EXISTING MAINTENANCE ROAD

PLANT LEGEND

NO.	PLANT NAME	HT.	SPREAD	FLOWER
1	PLANT NAME	HT.	SPREAD	FLOWER
2	PLANT NAME	HT.	SPREAD	FLOWER
3	PLANT NAME	HT.	SPREAD	FLOWER
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46	PLANT NAME	HT.	SPREAD	FLOWER
47	PLANT NAME	HT.	SPREAD	FLOWER
48	PLANT NAME	HT.	SPREAD	FLOWER
49	PLANT NAME	HT.	SPREAD	FLOWER
50	PLANT NAME	HT.	SPREAD	FLOWER

- NOTES**
- 1. ALL PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CALIFORNIA PLANTING GUIDE AND THE CALIFORNIA PLANTING GUIDE FOR LANDSCAPE ARCHITECTS.
 - 2. ALL PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CALIFORNIA PLANTING GUIDE AND THE CALIFORNIA PLANTING GUIDE FOR LANDSCAPE ARCHITECTS.
 - 3. ALL PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CALIFORNIA PLANTING GUIDE AND THE CALIFORNIA PLANTING GUIDE FOR LANDSCAPE ARCHITECTS.
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10' HIGH WALL

100' BUFFER ZONE

FUTURE NATURAL HABITAT RESTORATION AREA

PACIFIC COAST HIGHWAY

EXISTING SIDEWALK

SAN GABRIEL RIVER



LB APP NO. 1601-05
UA JOB# 16-063
12.06.16

LOS CERRITOS WETLANDS OIL CONSOLIDATION & RESTORATION

Long Beach, California

PUMPKIN PATCH SITE CONCEPTUAL LANDSCAPE PLAN

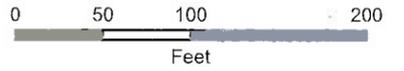


AA-L-1



Legend

-  Project Boundary
-  100' Buffer From Restoration Area
-  Potential Pickleweed/Shoregrass Restoration Area
-  40' Wide Construction Work Area
-  Proposed Pipeline Route



AA-L-2

PUMPKIN PATCH
 Pumpkin Patch Habitat Restoration Map

GLENN LUKOS ASSOCIATES




Google



NORTH EAST



NORTH WEST



SOUTH EAST



SOUTH WEST

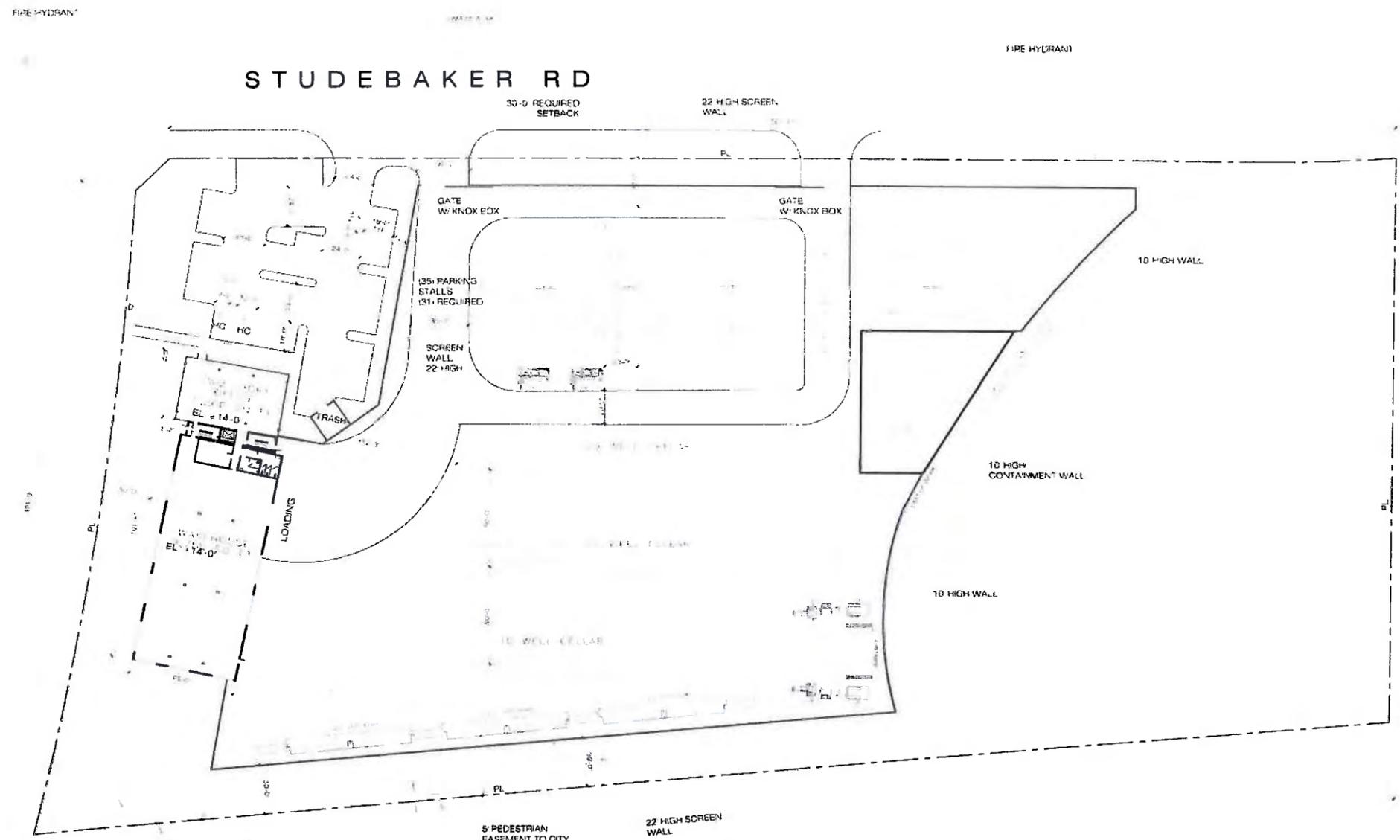
PUMPKIN PATCH
LONG BEACH, CALIFORNIA



PACIFIC COAST HWY

STUDEBAKER RD

SAN GABRIEL RIVER



OFFICE PLAZA
NEW FIRE HYDRANT
ADA PATH OF TRAVEL
DASHED LINE INDICATES CANOPY ABOVE
30'-0" REQUIRED SETBACK

INGRESS, EGRESS AND ELOPE TO COUNTY FLOOD CONTROL

5' PEDESTRIAN EASEMENT TO CITY OF LONG BEACH

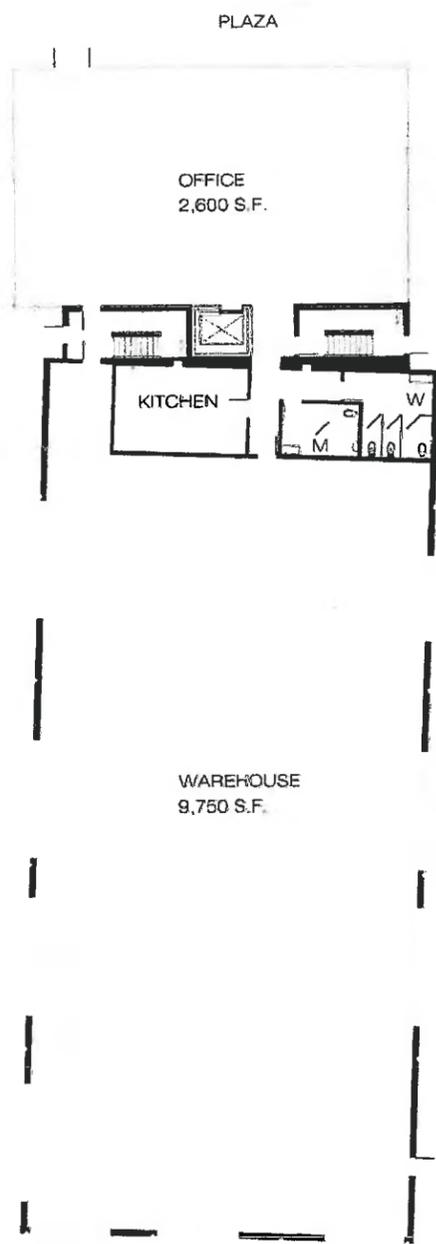
22' HIGH SCREEN WALL

30'-0" REQUIRED SETBACK

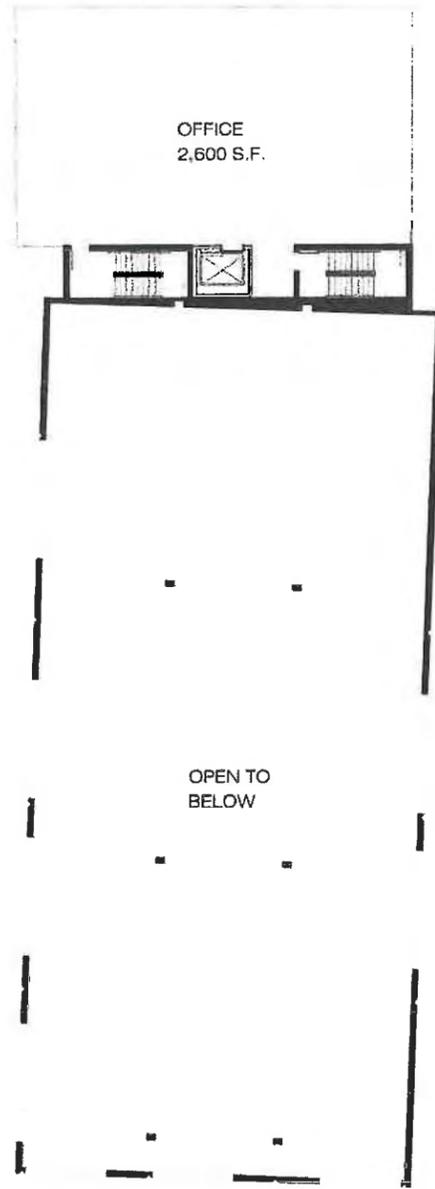
Pacific Coast Highway + Studenbaker Road

Lot Area	325,787 sf	7.42 acres
Lot Coverage		
Max. Lot Coverage (35%)	113,625 sf	2.60 acres
Proposed Lot Coverage		
Warehouse + Office	12,450 sf	
Total Lot Coverage	12,450 sf	
Building Area		
1st level Office	2,600 sf	
Warehouse	9,700 sf	
2nd level Office	2,600 sf	
Total	14,900 sf	
FAR	0.04	
Landscaping Provisions		
Required Landscaping Area (15% Lot Area)	48,868 sf	1.05 acres
Proposed Landscaping Area	47,915 sf	1.00 acres
Proposed Percentage	10%	
Required 1 Tree / 550 sq ft Proposed Parking Lot Trees	6.4 Trees	
Proposed Parking Lot Trees	12 Trees	
Usable Open Space		
Required Usable Open Space (30% Lot Area)	97,736 sf	2.11 acres
Proposed Usable Open Space	137,183 sf	3.15 acres
Building Height		
Max. Height Non-Residential	35 Feet	
Screen Wall	22 Feet	
Warehouse	22 Feet	
Office	35 Feet	
PARKING		
PARKING REQUIRED Office	21 Stalls	5,250 sf
Warehouse	10 Stalls	5,1000 sf
Proposed #provided	35 Stalls	Standards + HC

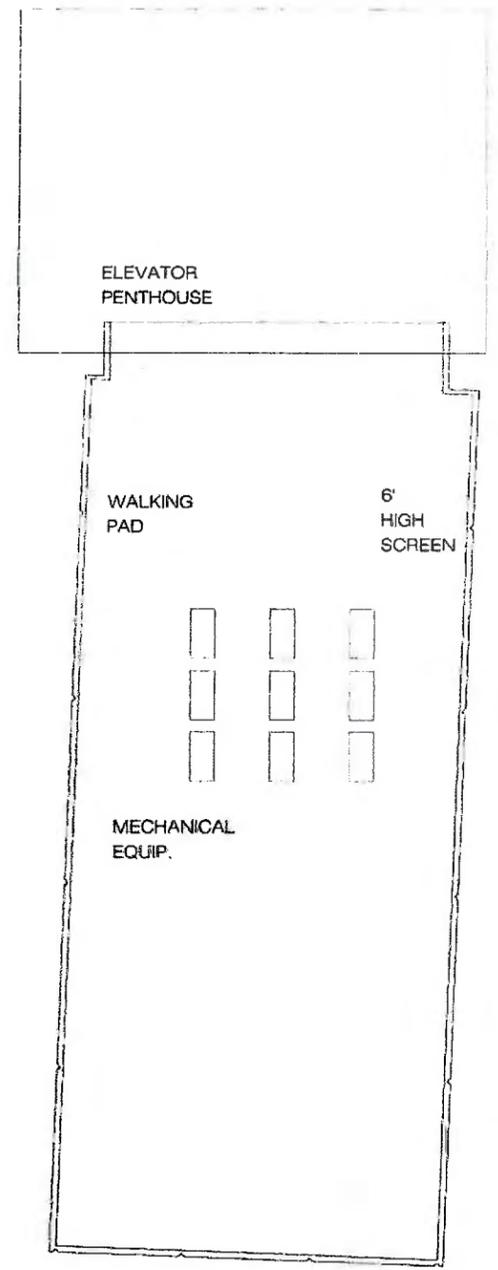




BUILDING PLAN - 1ST LEVEL
 OFFICE AREA: 2,600 SF
 WAREHOUSE AREA: 9,750 SF



BUILDING PLAN - 2ND LEVEL
 OFFICE AREA: 2,600 SF



ROOF PLAN

OFFICE AREA: 5,200 S.F.
 WAREHOUSE: 9,750 S.F.

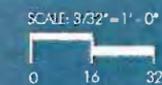


LD APP NO. 1601-05
 UA JOB# 16-063
 05.30.17

**LOS CERRITOS WETLANDS
 OIL CONSOLIDATION & RESTORATION**

Long Beach, California

FLOOR PLANS





1 - NORTH ELEVATION

SCALE 1/8" = 1'-0"



2 - WEST ELEVATION

SCALE 1/8" = 1'-0"



A VITRO INSULATED GLAZING SOLARBAN OPTRELUE + AVIPROTEK 7



B ALUMINUM WINDOWS AND SUPPORTS DARK BRONZE FINISH



C ALUMINUM SUNSHADES ANODIZED FINISH



D VITRO STARPHIRE SPANDREL 100 TANZANITE BLUE



E PAINTED STRUCTURAL TUBE STEEL SUPPORT SHERWIN WILLIAMS SW 0023 FEWTER TANKARD



F METAL PANELING AEP SPAN COOL REGAL WHITE



G BOARD FORMED CONCRETE NATURAL GRAY



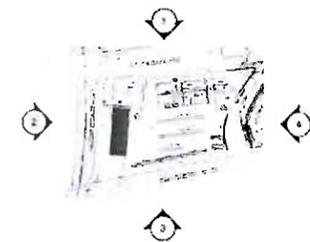
H STAINED WOOD PLANK SOFFIT RANDOM STAGGERED



I PAINTED CONCRETE SHERWIN WILLIAMS SW 0054 TWILIGHT GRAY



J PAINTED CONCRETE 3 SHERWIN WILLIAMS SW E515 LEISURE BLUE



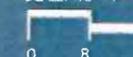
LR APP. NO. 1601-05
 LA JOB# 16-063
 05.30.17

LOS CERRITOS WETLANDS OIL CONSOLIDATION & RESTORATION

Long Beach, California

BUILDING ELEVATIONS

SCALE 1/8" = 1'-0"

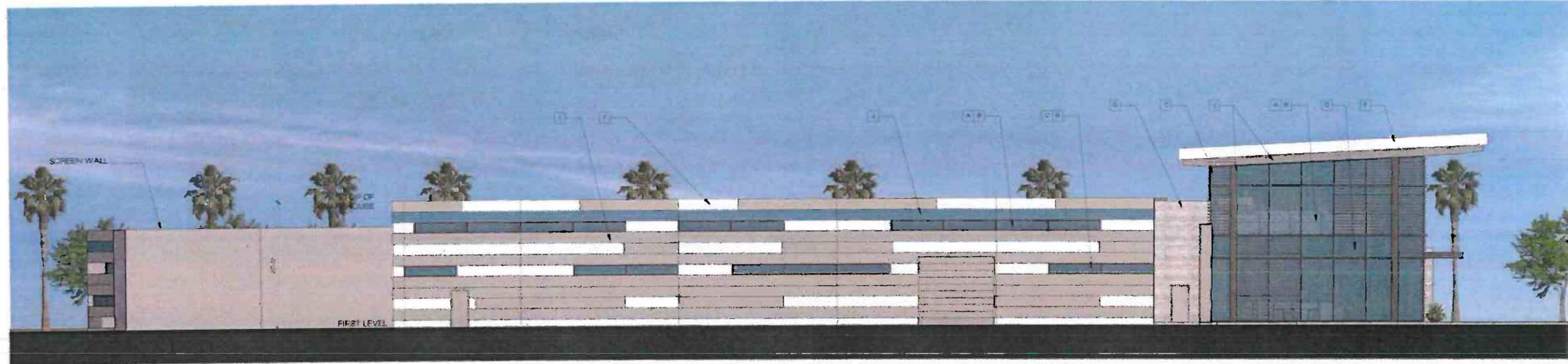


TOP OF WAREHOUSE
 FIRST LEVEL
 EXISTING GRADE 14.50
 FINISH GRADE 14.75



3 - SOUTH ELEVATION

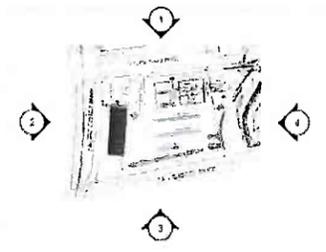
SCALE 1/8" = 1'-0"



4 - EAST ELEVATION

SCALE 1/8" = 1'-0"

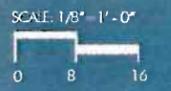
- 
A VITRO INSULATED GLAZING SOLARBAN OPTIBLUE - AVIPROTEK T
- 
B ALUMINUM WINDOWS AND SUPPORTS DARK BRONZE FINISH
- 
C ALUMINUM SLINSHADES ANODIZED FINISH
- 
D VITRO STARRHRE SPANDREL (CD TANZANITE BLUE
- 
E PAINTED STRUCTURAL TUBE STEEL SUPPORT SHERWIN WILLIAMS SW 0023 PEWTER TANKARD
- 
F METAL PANELING AEP SPAN COOL REGAL WHITE
- 
G BOARD FORMED CONCRETE NATURAL GRAY
- 
H STAINED WOOD PLANK SOFFIT RANDOM STAGGERED
- 
I PAINTED CONCRETE SHERWIN WILLIAMS SW 0054 TWILIGHT GRAY
- 
J PAINTED CONCRETE 3 SHERWIN WILLIAMS SW 6515 LEISURE BLUE
- 
K STAINLESS STEEL WIREFRAME, DUAL ALTERNATING PATTERNS, JOHNSON SCREENS



LB APP NO. 1607-05
 UA JOB# 16-063
 05.30.17

**LOS CERRITOS WETLANDS
 OIL CONSOLIDATION & RESTORATION**
 Long Beach, California

BUILDING ELEVATIONS



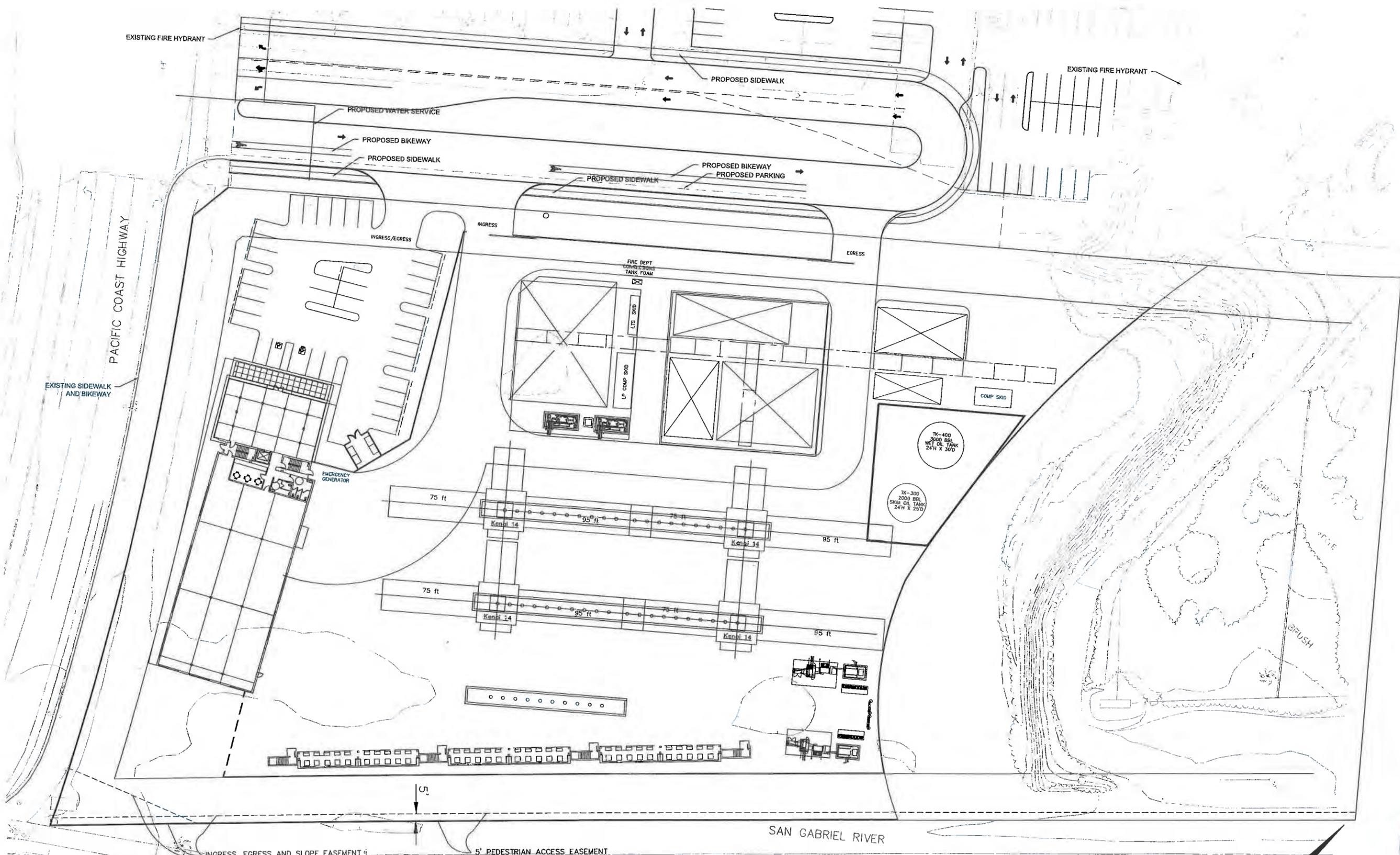


LB APP. NO. 1601-05
UA JOB# 16-063
05.30.17

LOS CERRITOS WETLANDS OIL CONSOLIDATION & RESTORATION

Long Beach, California

PERSPECTIVES



PUMPKIN PATCH UTILITIES AND EASEMENT PLAN

LONG BEACH, CALIFORNIA

INGRESS, EGRESS AND SLOPE EASEMENT TO COUNTY FLOOD CONTROL

5' PEDESTRIAN ACCESS EASEMENT TO THE CITY OF LONG BEACH



AA-SP-3
DATE: 12.22.16

PLANTING LEGEND

TREES			
SYMBOL	TREE NAME	COMMON NAME	SIZE
	EXISTING PLANT TO REMAIN		
	FRUITFUL PLANT	CELANIA CHEERY	24 INCH
	CELI DECORATIVE	WILD PLANT 13	24 INCH

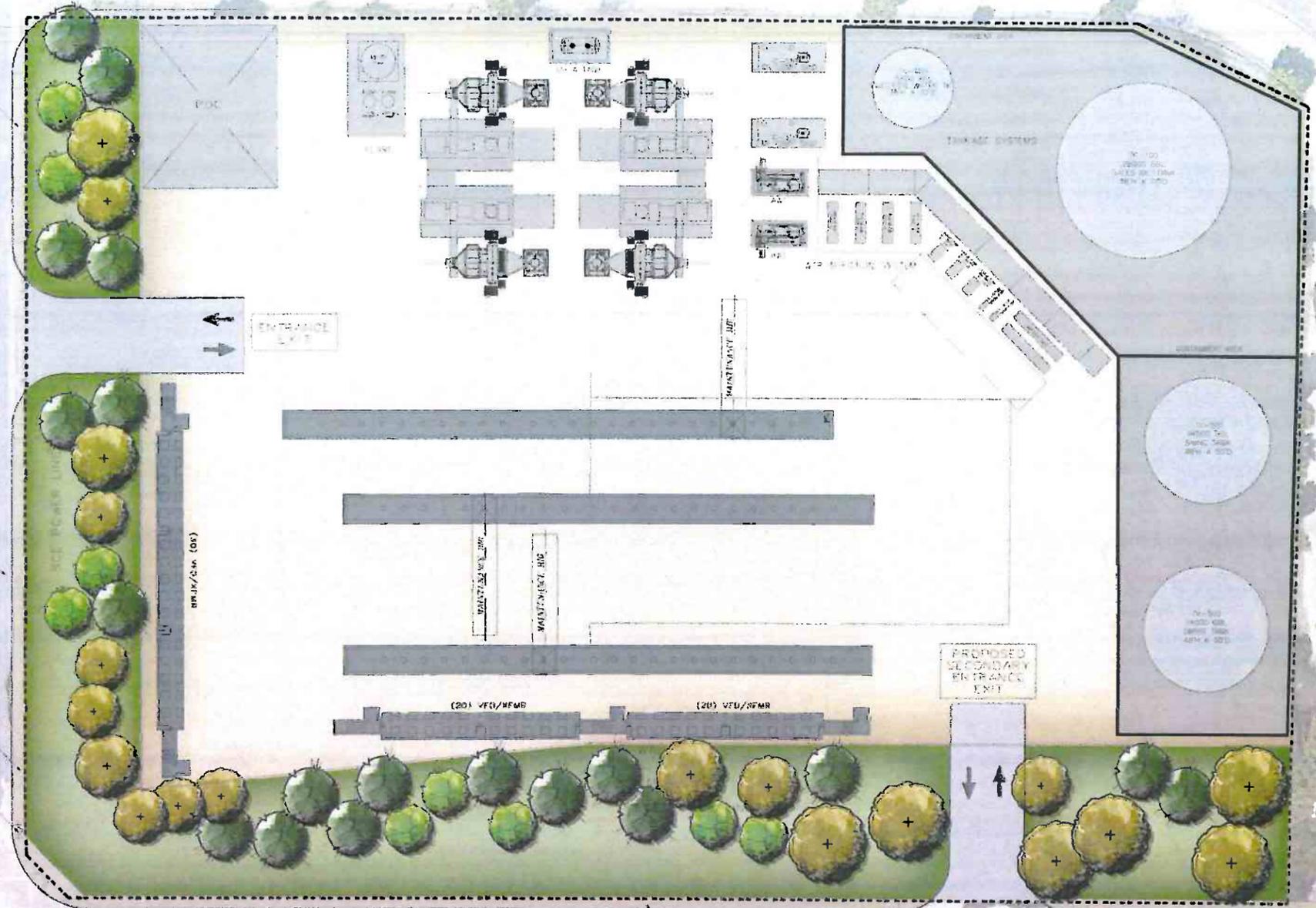
SHRUBS			
SYMBOL	PLANT NAME	COMMON NAME	SIZE
	REYNOLDS BLUE BELL	REYNOLDS BLUE BELL	1.5 GAL
	ALICE BRIDGES	ALICE BRIDGES	1.5 GAL
	ARTIST'S CROCODONIA	ARTIST'S CROCODONIA	1.5 GAL
	BALEWIG PLUMS	BALEWIG PLUMS	1.5 GAL
	CLIPPER CORONILLA	CLIPPER CORONILLA	1.5 GAL
	BOZELLA CALIFORNICA	BOZELLA CALIFORNICA	1.5 GAL
	HEALTHY PLANTS	HEALTHY PLANTS	1.5 GAL
	LYNCHBURGH	LYNCHBURGH	1.5 GAL
	AMONGST PLANTS	AMONGST PLANTS	1.5 GAL
	MONTECALA PLANTS	MONTECALA PLANTS	1.5 GAL
	FRUITFUL PLANTS	FRUITFUL PLANTS	1.5 GAL
	FRUITFUL PLANTS	FRUITFUL PLANTS	1.5 GAL
	FRUITFUL PLANTS	FRUITFUL PLANTS	1.5 GAL
	FRUITFUL PLANTS	FRUITFUL PLANTS	1.5 GAL
	FRUITFUL PLANTS	FRUITFUL PLANTS	1.5 GAL
	FRUITFUL PLANTS	FRUITFUL PLANTS	1.5 GAL
	FRUITFUL PLANTS	FRUITFUL PLANTS	1.5 GAL
	FRUITFUL PLANTS	FRUITFUL PLANTS	1.5 GAL
	FRUITFUL PLANTS	FRUITFUL PLANTS	1.5 GAL
	FRUITFUL PLANTS	FRUITFUL PLANTS	1.5 GAL

NOTES

- 1. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 2. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 3. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 4. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 5. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 6. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 7. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 8. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 9. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 10. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 11. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 12. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 13. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 14. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 15. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 16. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 17. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 18. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 19. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 20. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.

STUDEBAKER RD

WESTMINSTER AVE (SECOND ST)



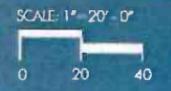
LB APP. NO. 1601-05
 UA JOB# 16-063
 12.21.16

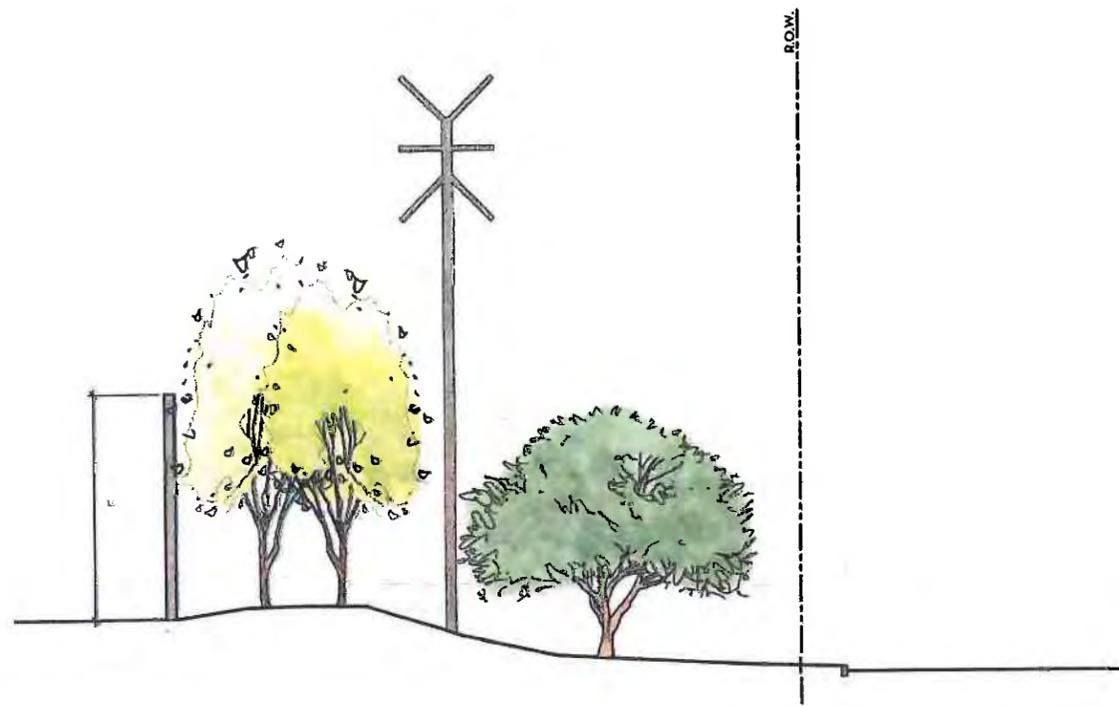
**LOS CERRITOS WETLANDS
 OIL CONSOLIDATION & RESTORATION**

Long Beach, California

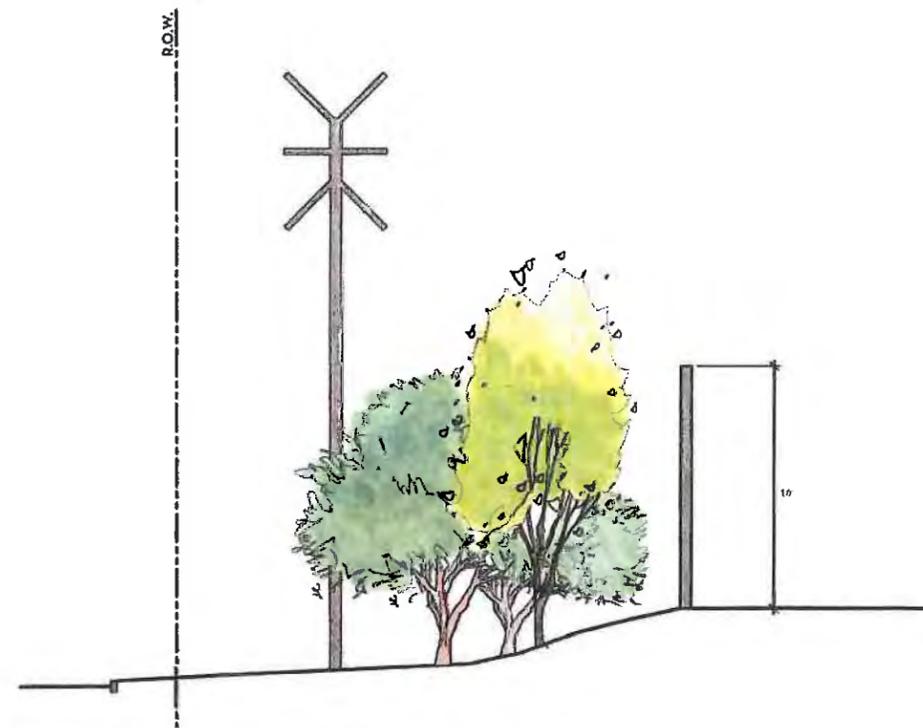
LCWA SITE
 CONCEPTUAL LANDSCAPE PLAN

BB-L-1





SECTION A - A' 1" = 8'
NORTH STUDEBAKER ROAD



SECTION B - B' 1" = 8'
WESTMINSTER BOULEVARD

LANDSCAPE CONCEPT PLAN
LCWA

WESTMINSTER BOULEVARD + N. STUDEBAKER ROAD
LONG BEACH, CALIFORNIA



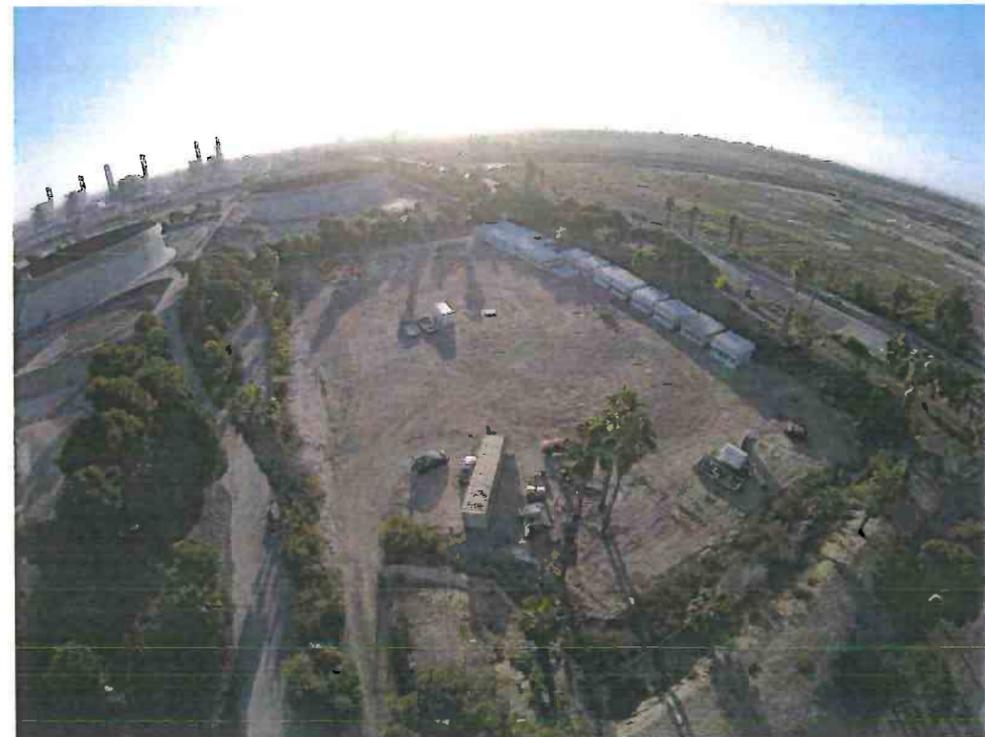
Scale 1" = 30'
Project 15.093
Date 22 Oct 15



NORTH EAST



NORTH WEST



SOUTH EAST



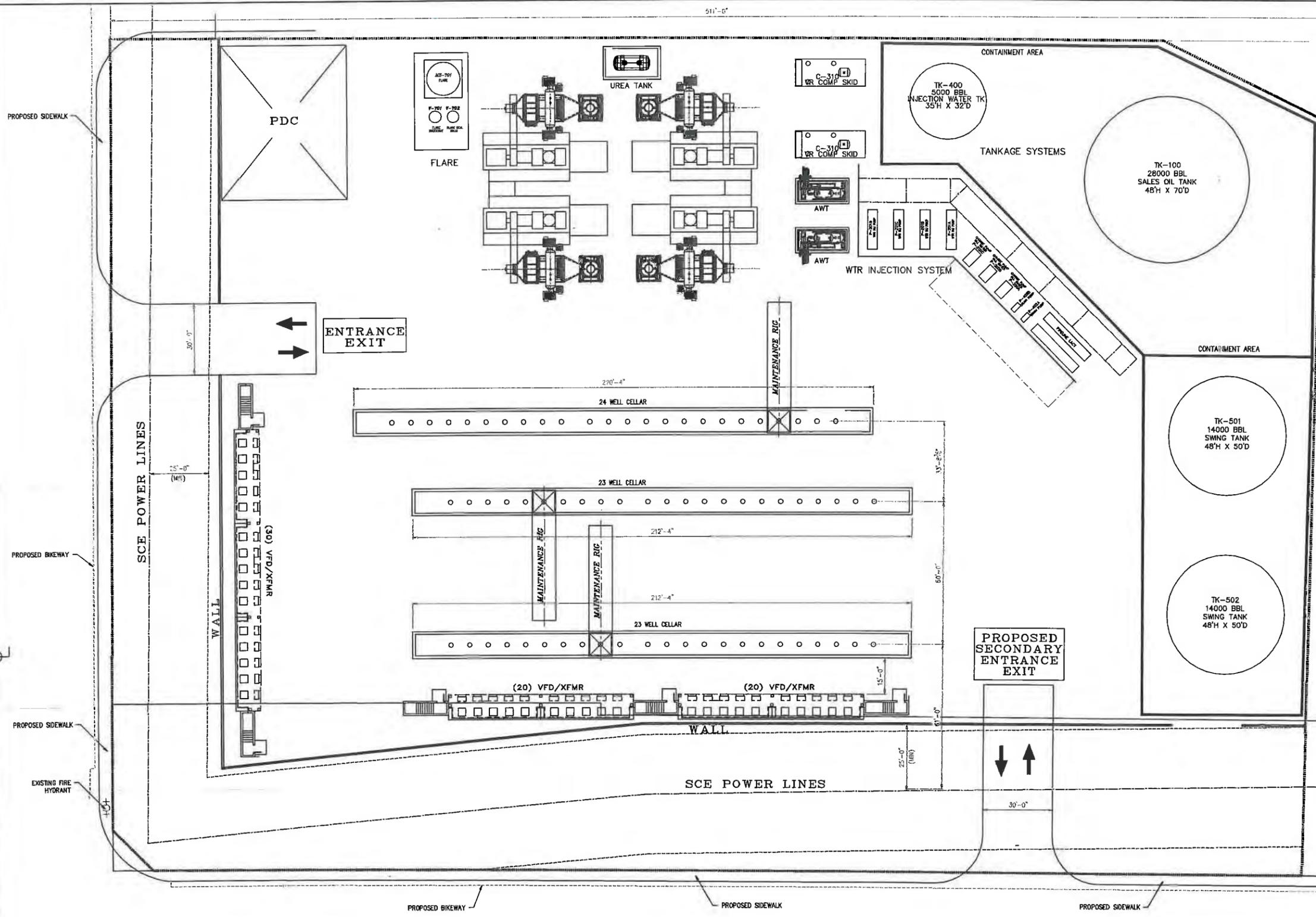
SOUTH WEST



N. STUDEBAKER RD.

PLAINS WEST COAST
TERMINALS LLC

WESTMINSTER BLVD



NOTES:
 1. CELLAR LAYOUT IS BASED ON DIMENSIONAL REQUIREMENTS FOR THE LOADCRAFT RIG # 6
 2. PROCESS EQUIPMENT SIZES ARE APPROXIMATE AND WILL NEED TO BE PROPERLY SIZED
 3. LOCATIONS SHOWN HAVE NOT BEEN FINALIZED

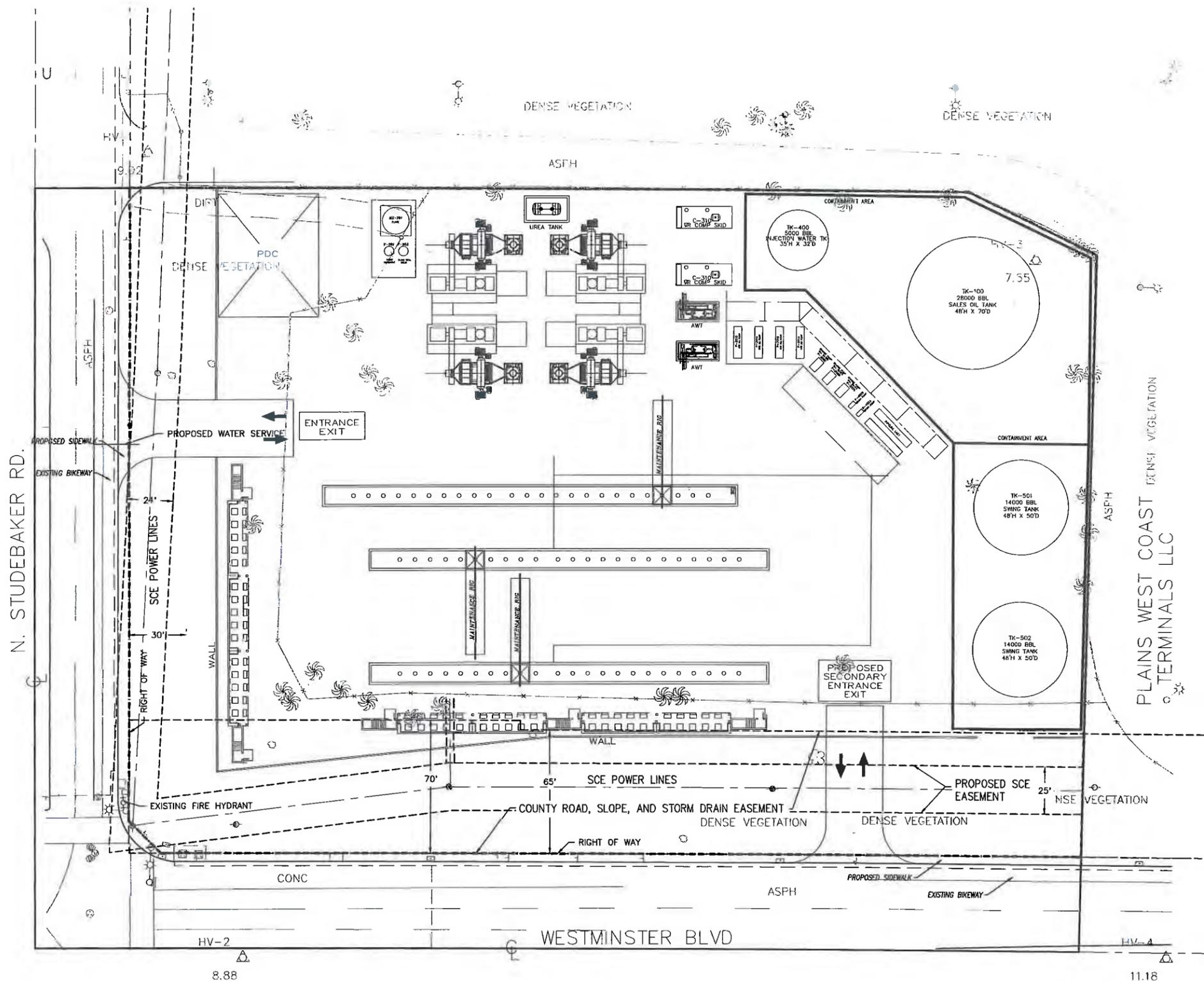
REV.	DATE	BY	DESCRIPTION
F	2/20/16	KL	ISSUED FOR REVIEW
B	3/17/16	MJB	ISSUED FOR REVIEW
B-1	0/26/16	MJB	FOR REVIEW (ADDED SCE SUBSTATION)
B-2	0/27/16	MJB	FOR REVIEW (ADDED PDC)
C	1/22/16	MJB	FOR REVIEW (ADDED LOGO)
D	2/02/16	MSA	FOR REVIEW (ADDED TURBINES)
E	2/06/16	RV	FOR REVIEW (ADDED BOILER)



CONCEPTUAL LAYOUT
BB-SP-1

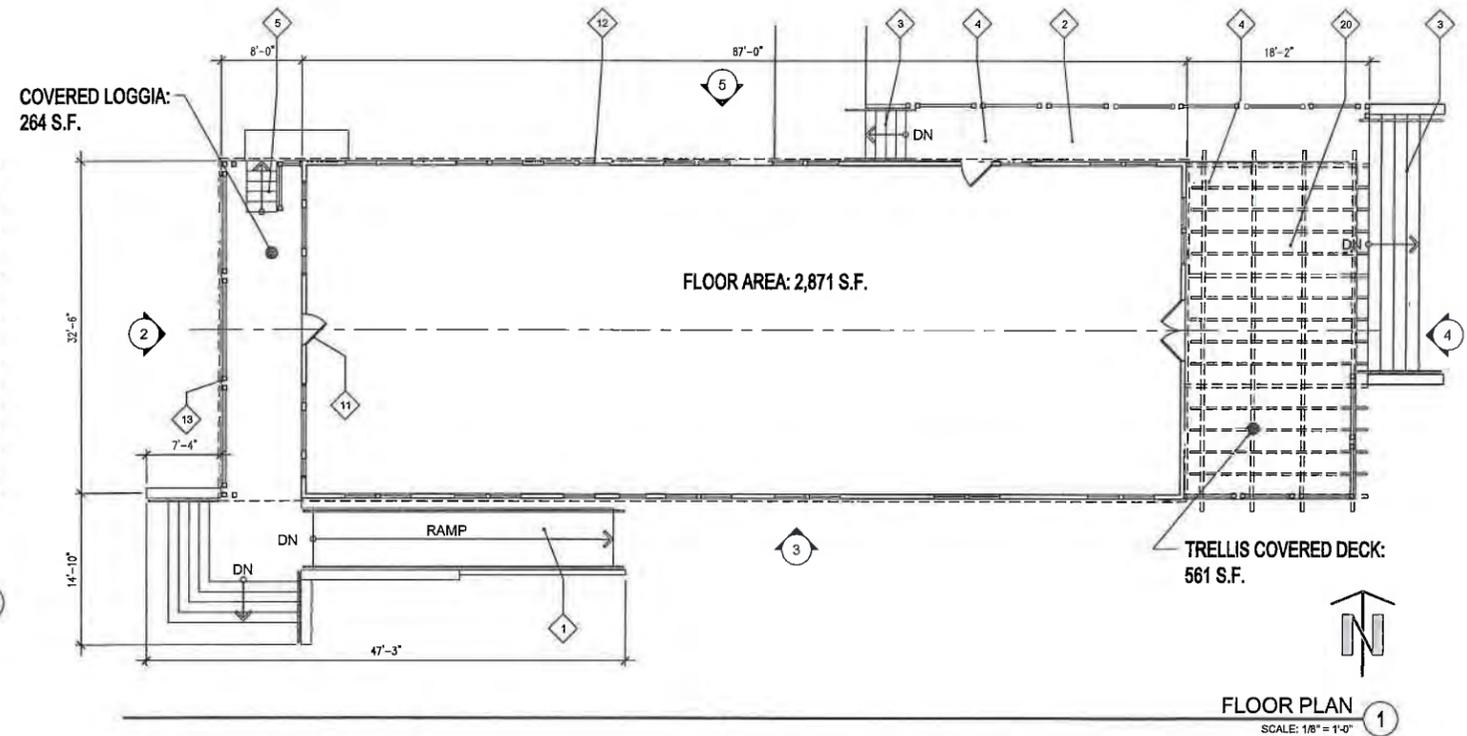
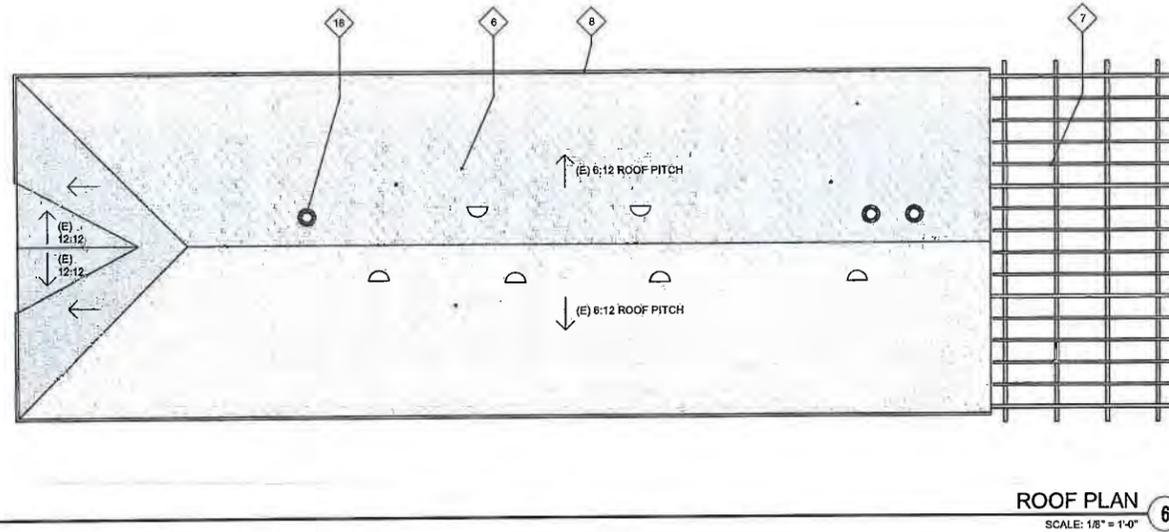
BEACH_OIL_MINERALS_PARTNERS		REV. NO.
LONG_BEACH_CALIFORNIA		F
LCWA_PLOT_PLAN		CO. NO.
DATE	3/14/16	6531-SK-02
SCALE	1"=20'-0"	6531

SPEC SERVICES
 SPEC Services, Inc.
 10540 Tolbert Ave., Suite 100 East
 Fountain Valley, CA 92705
 (714) 963-8077
 S:\8866A\8866A_6531_SK-02.dwg:1



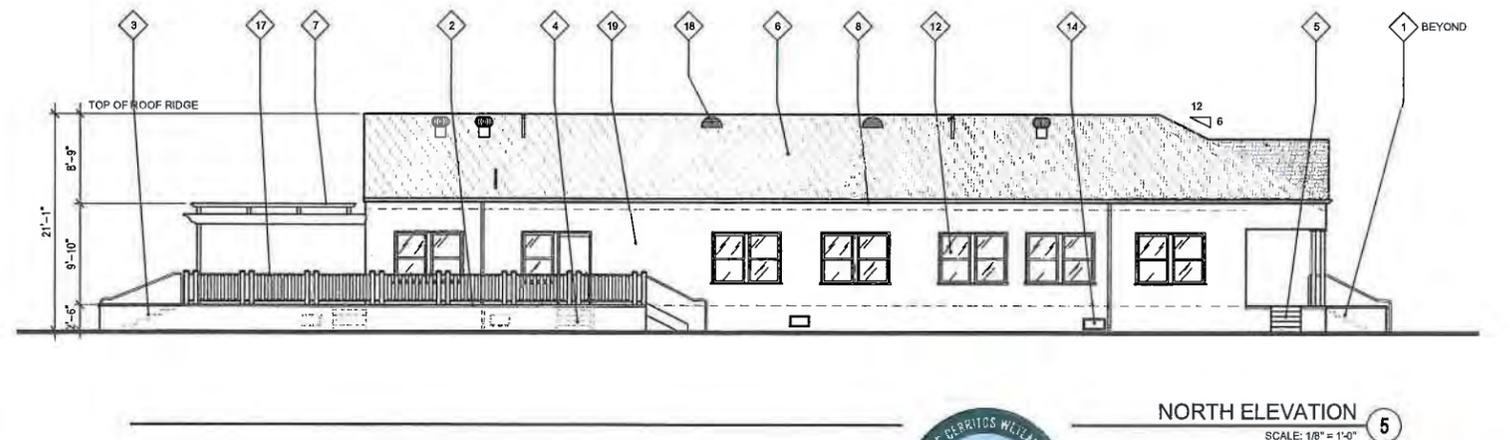
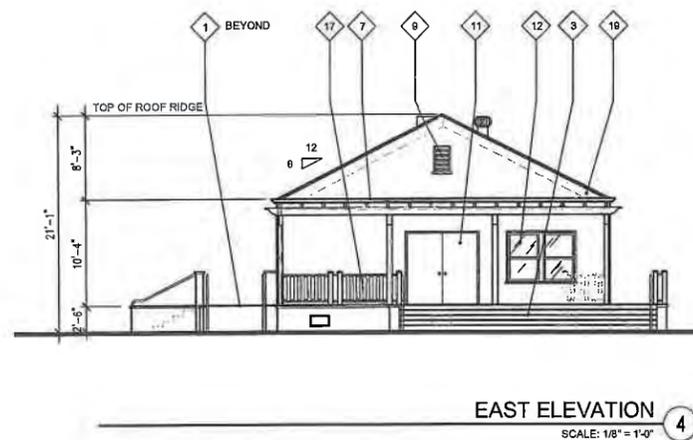
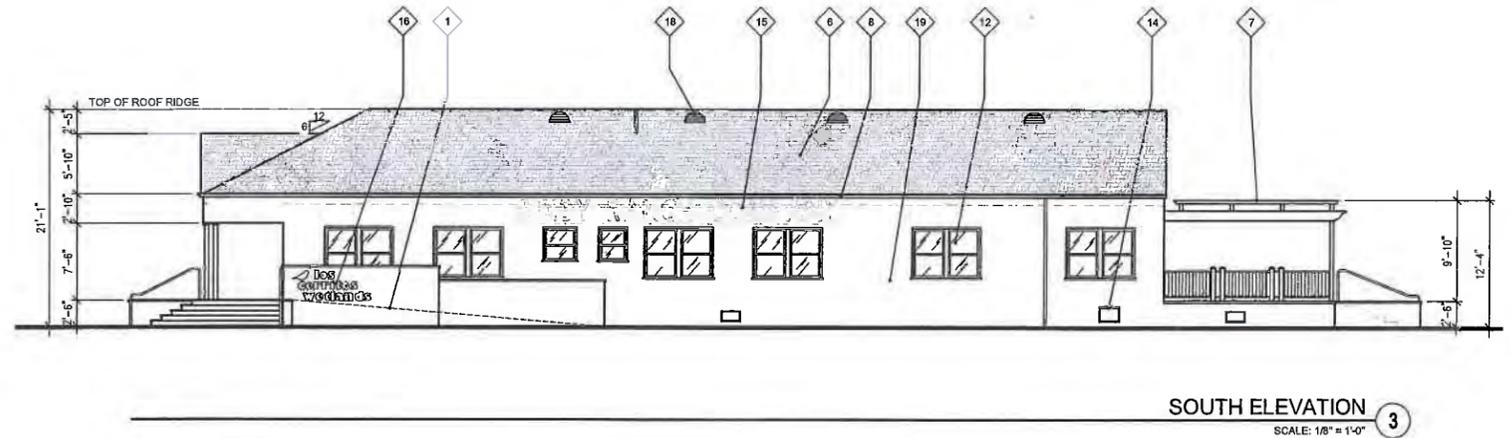
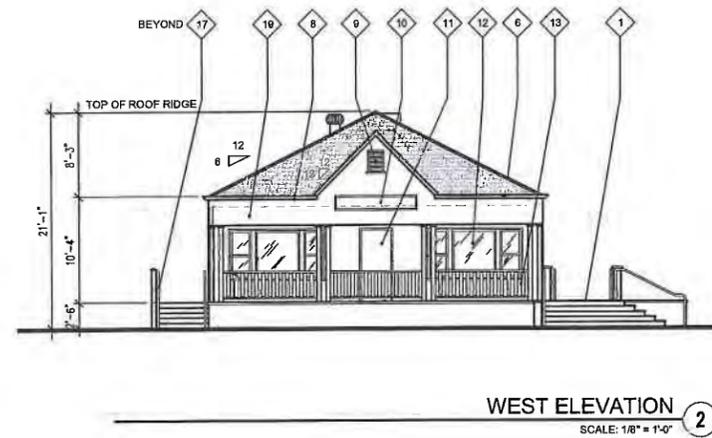
LCWA UTILITIES AND EASEMENT PLAN
 LONG BEACH, CALIFORNIA





KEY NOTES

- | MARK | DESCRIPTION |
|------|--|
| 1 | NEW CONCRETE ADA RAMP, STAIR AND LANDING |
| 2 | NEW RAISED DECK |
| 3 | NEW STAIR |
| 4 | EXISTING STAIR TO BE REMOVED |
| 5 | EXISTING STAIR TO REMAIN |
| 6 | EXISTING COMPOSITION SHINGLE ROOF / REPLACE IF REQUIRED |
| 7 | EXISTING TRELLIS |
| 8 | EXISTING RAIN GUTTER WITH DOWNSPOUTS |
| 9 | EXISTING ATTIC VENT |
| 10 | EXISTING FRAMED BOARD |
| 11 | EXISTING DOOR, TYPICAL |
| 12 | EXISTING WINDOW, TYPICAL |
| 13 | EXISTING PAINTED WOOD POST AND BALUSTERS |
| 14 | EXISTING UNDERFLOOR VENT |
| 15 | EXISTING CHANNEL LETTERS AND BACK BOARD TO BE REMOVED |
| 16 | PROPOSED VISITOR'S CENTER SIGNAGE OVER POURED-IN-PLACE CONCRETE WALL WITH CHAMFER AND REVEAL |
| 17 | NEW PAINTED (OR STAINED) WOOD BALUSTER GUARDRAIL TO MATCH EXISTING |
| 18 | EXISTING ROOF TOP GRAVITY VENTS, STACKS, ETC. |
| 19 | EXISTING EXTERIOR CEMENT PLASTER / COLOR TO REMAIN, REPAIR AS REQUIRED |
| 20 | NOTE: DECK ALSO IS A SECOND EXIT, MAY REQUIRE A RAMP OR LIFT |



LOS CERRITOS WETLANDS VISITOR CENTER



Bryant • Palmer • Soto Inc.
ARCHITECTS & ENGINEERS

CC-A-1

(310) 328-9111





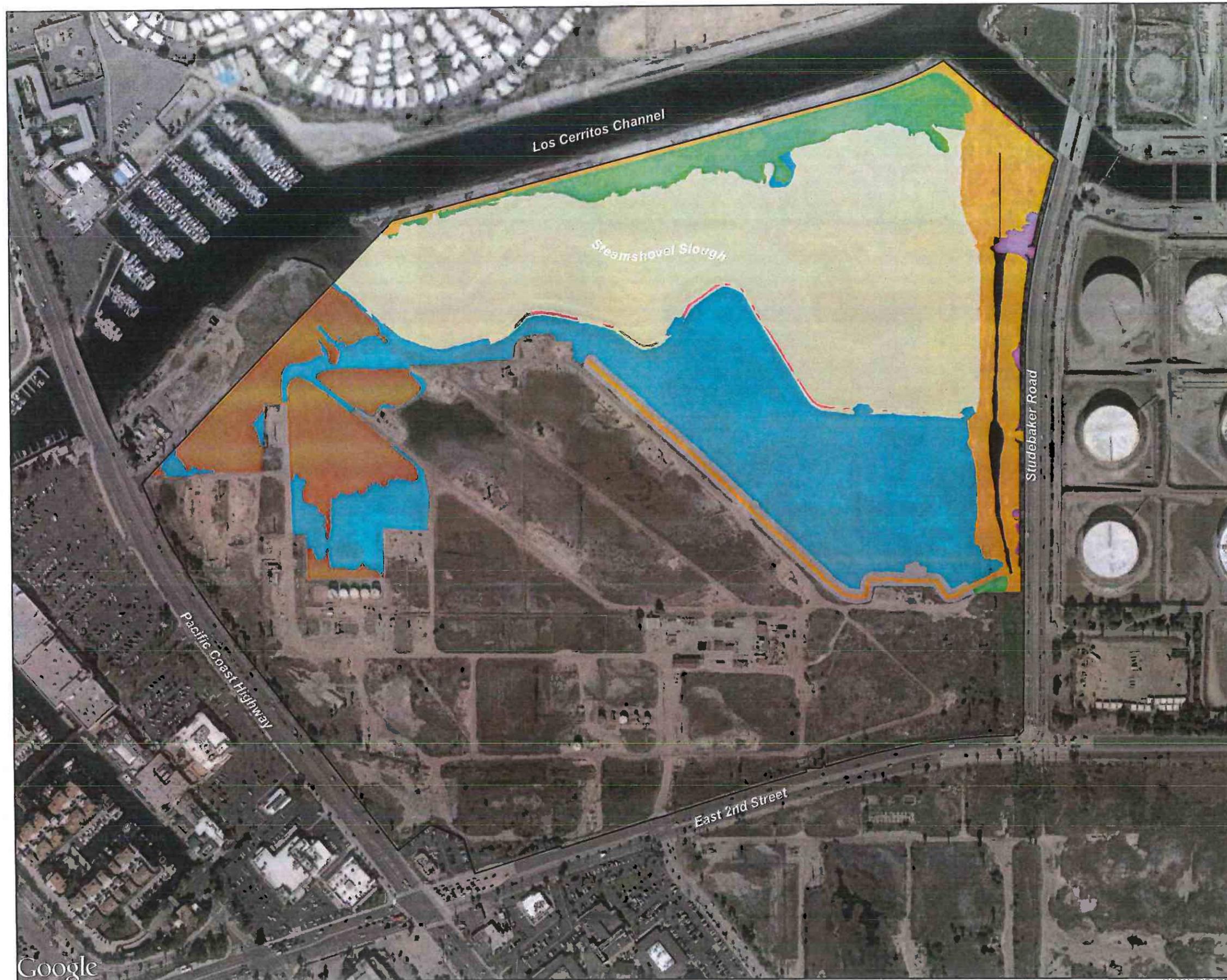
LB APP. NO. 1601-05
 UA JOB# 16-063
 10.04.17

**LOS CERRITOS WETLANDS
 OIL CONSOLIDATION & RESTORATION**
 Long Beach, California

SYNERGY SITE
 REVISED FIGURE 2-18 OF DEIR

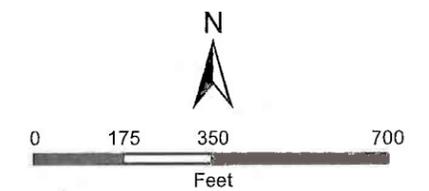


CC-L-1



Legend

-  Project Boundary
-  Trail
-  Tidal Marsh Re-establishment
-  Transitional Wetland Re-establishment
-  Transitional 2 Re-establishment
-  Tidal Marsh Rehabilitation
-  Upland Buffer Establishment
-  Steamshovel Slough Enhancement
-  Transitional 2 Enhancement
-  Upland Buffer Enhancement



1 inch = 350 feet

Coordinate System: State Plane 5 NAD 83
 Projection: Lambert Conformal Conic
 Datum: NAD83
 Map Prepared by: K. Kartunen, GLA
 Date Prepared: November 15, 2016

**UPPER LCW WETLANDS
 MITIGATION BANK**
 Synergy Oil Field - Proposed Restoration

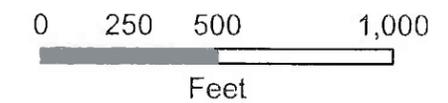
GLENN LUKOS ASSOCIATES





Legend

-  Synergy Oil Field Boundary
-  Mitigation Bank Phasing Boundary
-  Alkali Meadow (37.94 ac.)
-  Coastal Sage Scrub (0.09 ac.)
-  Coastal Saltmarsh (0.66 ac.)
-  Coastal Saltmarsh/Mudflat (23.65 ac.)
-  Freshwater Marsh (0.43 ac.)
-  Saltbush Scrub (6.41 ac.)
-  Sycamore/Elderberry Woodland (2.06 ac.)



1 inch = 500 feet



SYNERGY OIL FIELD

Phase 2 Restoration Area

GLENN LUKOS ASSOCIATES





NORTH EAST



NORTH WEST



SOUTH EAST



SOUTH WEST

SYNERGY OIL FIELD
LONG BEACH, CALIFORNIA

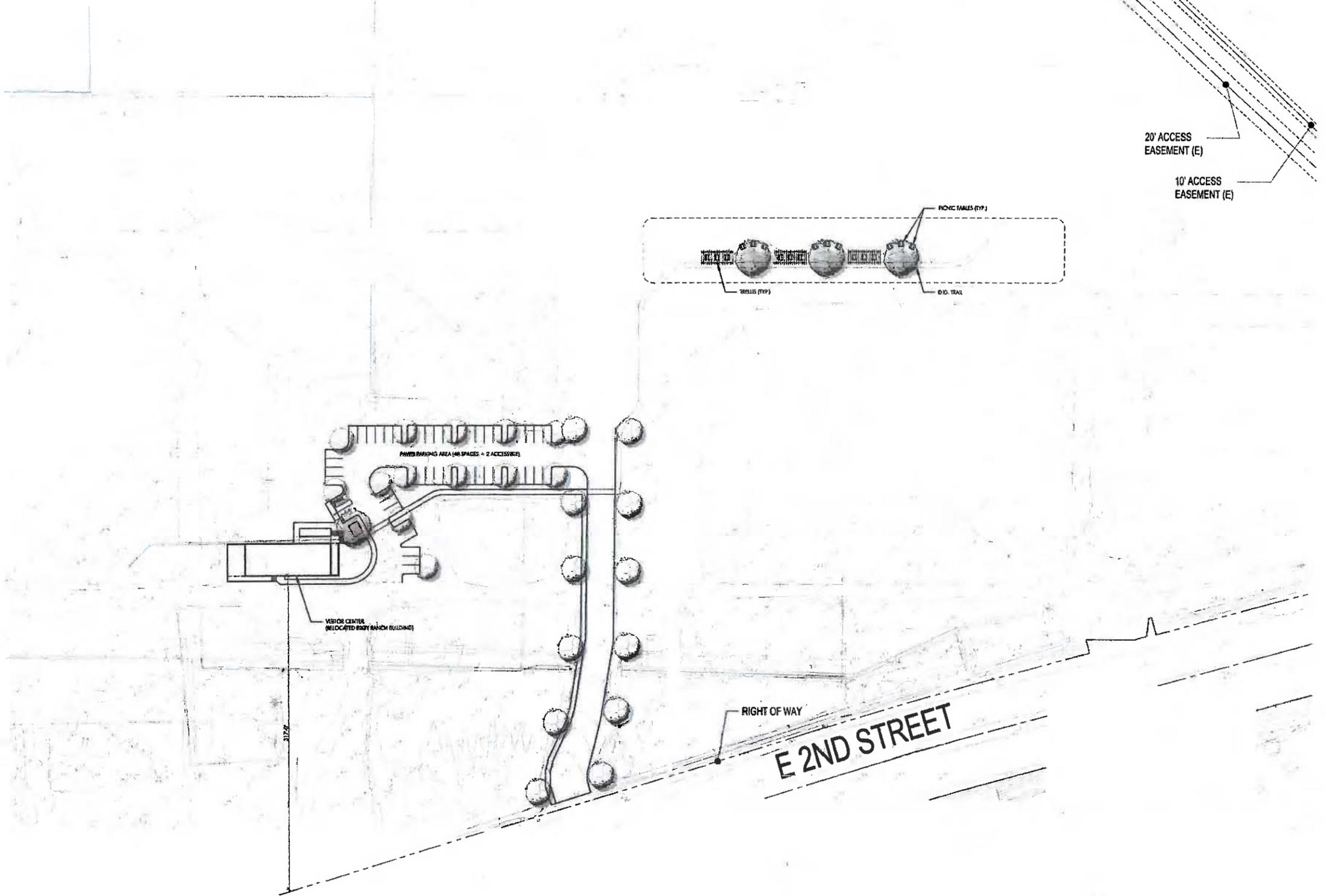




- LEGEND:**
- ASSESSOR PARCEL LINES
 - OIL WELL
 - LCWA SITE
 - SYNERGY OIL FIELD SITE (152 ACRES)
 - CITY MARKETPLACE MARSH (33 ACRES) SITE
 - HABITAT PRESERVATION AND RESTORATION



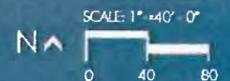
SYNERGY OIL FIELD SITE
 LONG BEACH, CALIFORNIA



JOB # 16-063
10.27.16

SYNERGY SITE - WETLANDS VISITOR CENTER
CONCEPTUAL LANDSCAPE PLAN

Long Beach, California



CC-SP-2



LEGEND:

-  ASSESSOR PARCEL LINES
OIL WELL TO BE ABANDONED
PER REMOVAL PLAN
-  LCWA SITE
-  SYNERGY OIL FIELD SITE (152 ACRES)
-  CITY MARKETPLACE MARSH (33 ACRES) SITE



SYNERGY UTILITIES AND EASEMENT PLAN
LONG BEACH, CALIFORNIA

CC-SP-
DATE 12/06/16



NORTH EAST



EAST



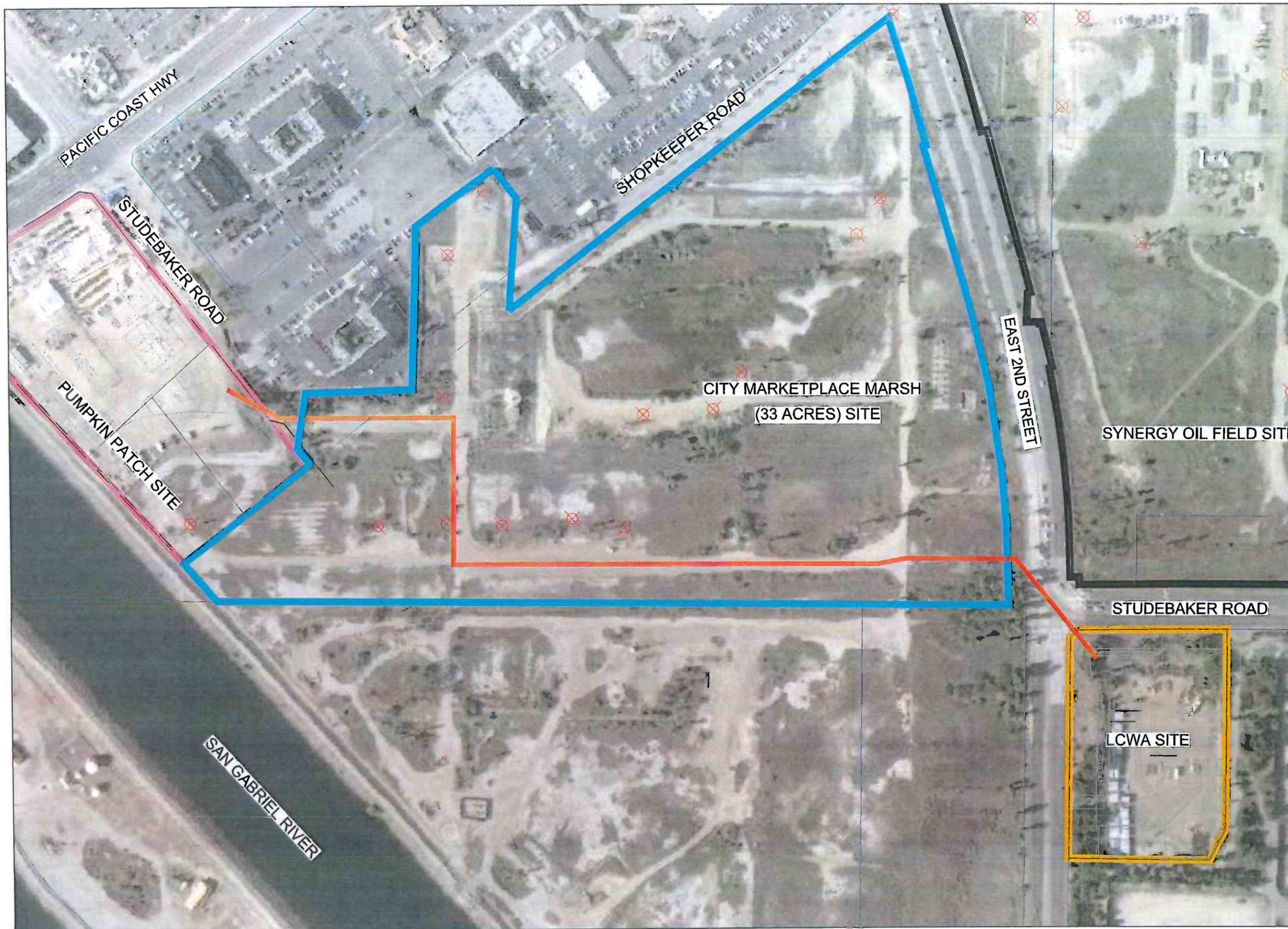
SOUTH EAST



WEST

MARKETPLACE MARSH
LONG BEACH, CALIFORNIA



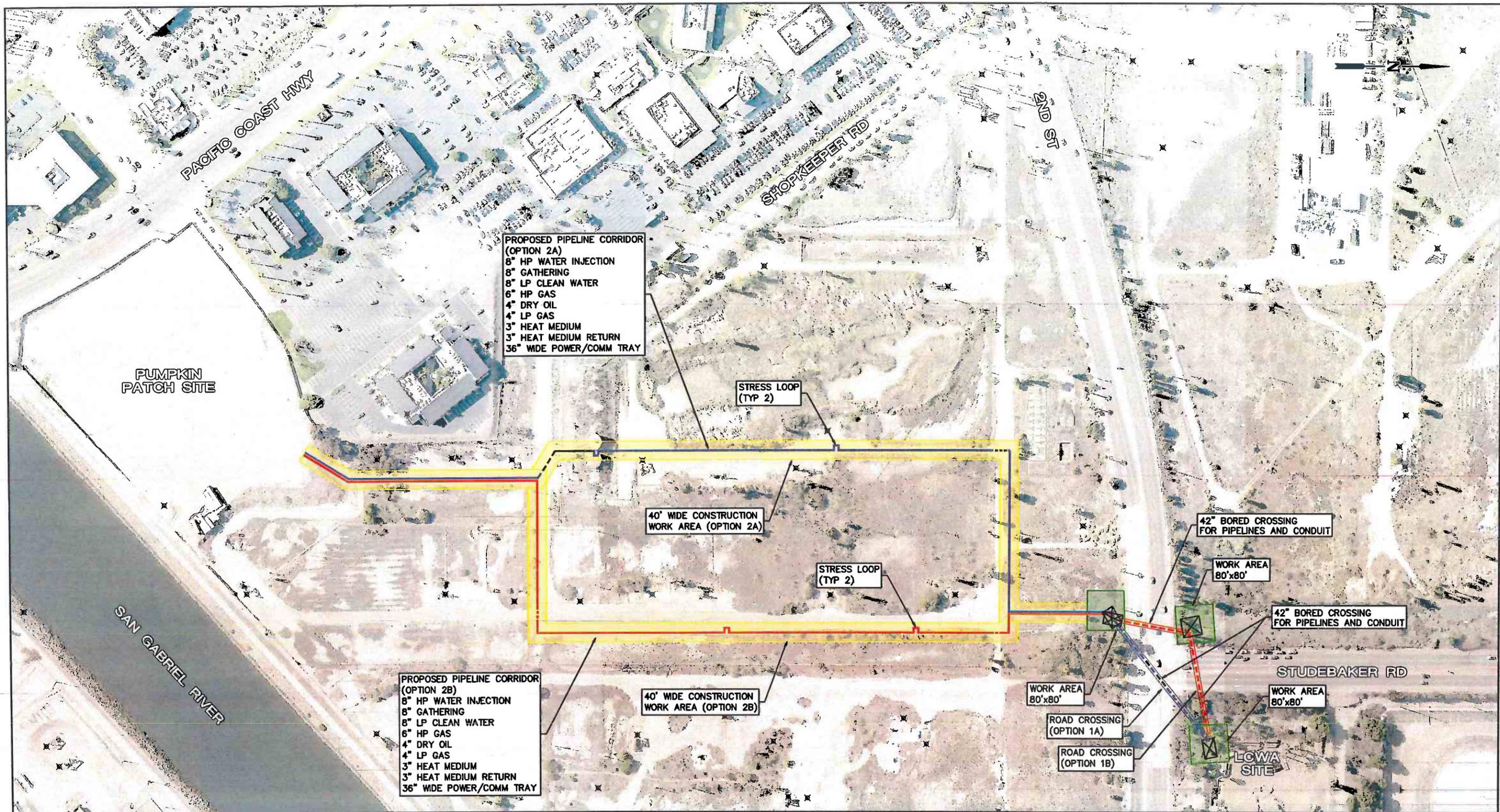


- LEGEND:**
- ASSESSOR PARCEL LINES
 - OIL WELL TO BE ABANDONED PER REMOVAL PLAN
 - PIPE BUNDLE OPTION 1
 - PUMPKIN PATCH SITE
 - LCWA SITE
 - SYNERGY OIL FIELD SITE
 - CITY MARKETPLACE MARSH (33 ACRES) SITE



CITY MARKETPLACE MARSH (33 ACRES) SITE
 LONG BEACH, CALIFORNIA

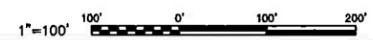
SCALE: 1" = 100'



- LEGEND:**
- PROJECT PREFERRED PIPELINE INTERSECTION CROSSING OPTION 1A
 - PROJECT ALTERNATE PIPELINE INTERSECTION CROSSING OPTION 1B
 - PROJECT PREFERRED ROUTE OPTION 2A
 - PROJECT ALTERNATE ROUTE OPTION 2B
 - ⊗ EXISTING WELL (DOGGR)
 - ▭ PROPOSED 40' WIDE CONSTRUCTION WORK AREA
 - ▭ PROPOSED 80' X 80' WORK AREA

PLAN
SCALE: 1"=100'

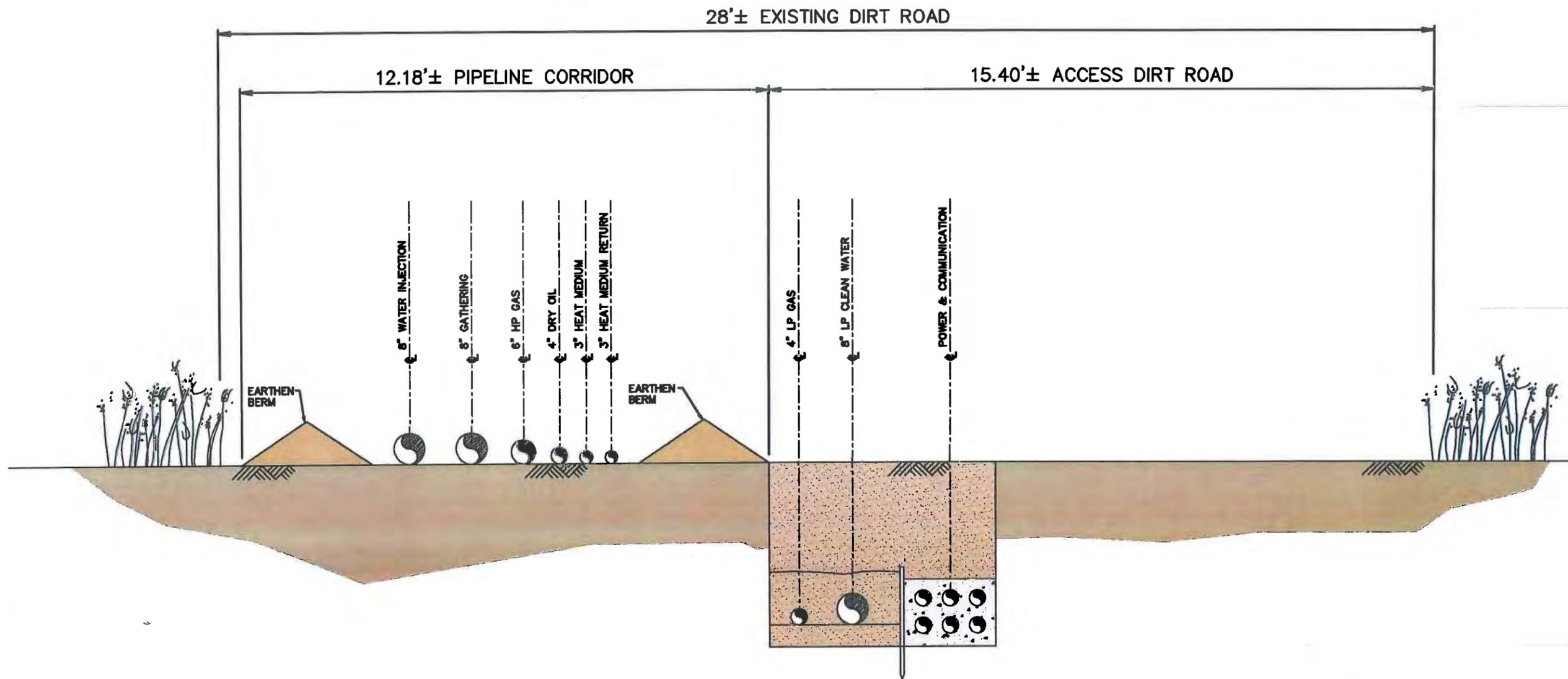
FOR CONCEPTUAL PURPOSES ONLY



REV	DATE	REVISION	BY	CHKD
B	10/12/2017	ISSUED FOR REVIEW	TM	OE
A	7/06/2017	ISSUED FOR REVIEW	LJM	ML



LOW OIL CONSOLIDATION & RESTORATION LONG BEACH, CALIFORNIA PROPOSED PIPELINE CORRIDOR ROUTE		
CHECKED: O. ESTRADA	DRAWING NUMBER: DD-SP-2	REVISION: B
DRAWN: T. MORRISON	SCALE: AS NOTED	DATE: 06/14/17
SHEET: OF SHEETS		



SECTION A
N.T.S. DD-SP-4

FOR CONCEPTUAL PURPOSES ONLY

REV	DATE	REVISION	BY	CHKD
A	8/18/2017	ISSUED FOR REVIEW	GE	TM



BIXBY CELLAR SITE DEVELOPMENT LONG BEACH, CALIFORNIA PROPOSED PIPELINE CORRIDOR - OPTION 1		
CHECKED: D. ESTRADA	DRAWING NUMBER	REVISION
DRAWN: T. MORRISON	DD-SP-3A	A
SCALE: AS NOTED	DATE: 10/21/16	SHEET: OF SHEETS

6631-EX-020A.dwg.1

EXHIBIT H

SITE PLAN REVIEW FINDINGS

(Synergy Oil Field at 6433 E. 2nd Street, City property at the southeast corner of Studebaker Road and 2nd Street, Pumpkin Patch Site at 6701 E. Pacific Coast Highway, and the Los Cerritos Wetlands Authority site at the northeast corner of Studebaker Road and 2nd Street)

Application No. 1601-05

Date: January 16, 2018

Pursuant to Section 21.25.506 of the Long Beach Municipal Code, Site Plan Review approval can be granted only when positive findings are made consistent with the following criteria set forth in the Zoning Ordinance. These findings and staff analysis are presented for consideration, adoption and incorporation into the record of proceedings:

- 1. THE DESIGN IS HARMONIOUS, CONSISTENT AND COMPLETE WITHIN ITSELF AND IS COMPATIBLE IN DESIGN, CHARACTER AND SCALE, WITH NEIGHBORING STRUCTURES AND THE COMMUNITY IN WHICH IT IS LOCATED;**

Synergy Oil Field: The proposed relocation of the Bixby Ranch Field Office 472 feet southwest of its current location, along with renovation of the building's exterior, and conversion to a Visitors Center does not alter the building's appearance on an oil field undergoing restoration as a wetland. The construction of the decomposed granite pedestrian-only trail leading to a picnic area and further north to the Los Cerritos Channel is consistent with the restored appearance and use of the restored wetlands.

City Property: The aboveground pipeline development and underground utility are consistent with the character of the surrounding area. As the oil pipeline and utility lines are not buildings, they do not require Site Plan Review; as such, this finding is inapplicable to this site. The adjacent property to the east is public property owned by the Los Cerritos Wetlands Authority that contains degraded wetlands and is also used for oil production by Signal Hill Petroleum Inc. who own the mineral rights. The character of the development is also consistent with the property across the San Gabriel River.

Pumpkin Patch site: The project consists of a 5,200 square-foot office building and 9,750-square-foot warehouse building. An 18-foot to 20-foot screen wall will screen the oil production areas from public view. The exterior materials of the office building consist of substantial glazing, with aluminum shades and bronzed aluminum frames. This design creates an aesthetic that is consistent with nearby landscape, but also establishes building character at the City gateway. In addition, the Project proposes the construction and operation of oil wells on the Pumpkin Patch site; however, as oil wells and oil storage tanks are not buildings, they do not require Site Plan Review. As such, this finding is inapplicable to the oil components.

LCWA Site: The oil wells and oil storage tanks are not buildings and do not require Site Plan Review; as such, this finding is inapplicable to this site.

2. THE DESIGN CONFORMS TO ANY APPLICABLE SPECIAL DESIGN GUIDELINES ADOPTED BY THE PLANNING COMMISSION OR SPECIFIC PLAN REQUIREMENTS, SUCH AS THE DESIGN GUIDELINES FOR R-3 AND R-4 MULTIFAMILY DEVELOPMENT, THE DOWNTOWN DESIGN GUIDELINES, PD GUIDELINES OR THE GENERAL PLAN;

The project is located in the Southeast Area Development Improvement Plan (SEADIP) Subareas 11a, 19 and 33, which allows for industrial uses. There are no special design guidelines applicable to this project site.

Synergy Oil Field: The Bixby Ranch Field Office is eligible for listing as a California Historic Resource. Its relocation as well as exterior restoration/renovation corrects inappropriate modifications that were previously made to the building, and increases the consistency with which the property can be evaluated for historical listing.

City Property: There are no buildings proposed; as such, this finding is inapplicable.

Pumpkin Patch Site: The exterior materials of the office building consist of substantial glazing, with aluminum shades and bronzed aluminum frames. This design creates a modern aesthetic that is consistent with nearby landscape, marks the building's place in current time as compared to previously developed properties, and establishes building character at the City gateway.

LCWA Site: There are no buildings proposed; as such, this finding is inapplicable.

3. THE DESIGN WILL NOT REMOVE SIGNIFICANT MATURE TREES OR STREET TREES, UNLESS NO ALTERNATIVE DESIGN IS POSSIBLE;

Synergy Oil Field: The relocation of the Bixby Ranch Field Office Building does not impact any significant mature trees. The project includes installation of parking lot landscaping as well as street trees.

City Property: There are no significant mature trees that will be removed, as the aboveground pipeline corridor as well as underground utility corridor are being located alongside an existing service road.

Pumpkin Patch Site: There are no significant mature trees on the site. As such, development will not impact any significant mature trees.

LCWA Site: There are non-native trees along the perimeter of the property that will remain, and also be supplemented with new Catalina Cherry and Western Redbud trees and shrubs.

4. THERE IS AN ESSENTIAL NEXUS BETWEEN THE PUBLIC IMPROVEMENT REQUIREMENTS ESTABLISHED BY THIS ORDINANCE AND THE LIKELY IMPACTS OF THE PROPOSED DEVELOPMENT;

All sites: Off-site improvements required for the project are related to the impacts of the proposed development, namely sidewalk, curb, and gutter as well as bike lane improvements, and undergrounding of eligible utilities.

5. THE PROJECT CONFORMS WITH ALL REQUIREMENTS SET FORTH IN CHAPTER 21.64 (TRANSPORTATION DEMAND MANAGEMENT), WHICH REQUIREMENTS ARE SUMMAMRIZED IN TABLE 25-1 OF THE ZONING ORDINANCE; AND

Non-residential projects of 25,000 square feet or more are subject to applicable requirements set forth in Section 21.64.030, Transportation Demand and Trip Reduction Measures, of the Long Beach Municipal Code. The Project does not include more than 25,000 square feet; as such, this finding is inapplicable.

6. THE APPROVAL IS CONSISTENT WITH THE GREEN BUILDING STANDARDS FOR PUBLIC AND PRIVATE DEVELOPMENT, AS LISTED IN SECTION 21.45.400 OF THE ZONING ORDINANCE.

Section 21.45.400 requires that all projects requiring Site Plan Review include: 1) parking lot landscaping; 2) bicycle racks; and 3) capacity to accommodate solar panels on the roof; and 4) designated areas for recycling.

Synergy Oil Field: The Visitors Center parking lot will include landscaping, bicycle racks, and designated areas for recycling. However, due to its potential historical significance, the modification of the building roof to accommodate solar panels is not an appropriate addition.

City Property: There are no buildings proposed; as such, this finding is inapplicable.

Pumpkin Patch Site: The parking area for the office building includes landscaping, bike racks, and designated areas for recycling. Solar panels are proposed to be installed on the roof. Therefore, the site is consistent with this finding.

LCWA Site: There are no buildings proposed; as such, this finding is inapplicable.

EXHIBIT I

SITE PLAN REVIEW CONDITIONS OF APPROVAL Application No. 1601-05 (A through D)

- A) Synergy Oil Field at 6433 East 2nd Street;
- B) City property at the southeast corner of Studebaker Road and 2nd Street;
- C) Pumpkin Patch Site at 6701 E. Pacific Coast Highway;
- D) Los Cerritos Wetlands Authority (LCWA) site at the northeast corner of Studebaker Road and 2nd Street)

Date: January 16, 2018

1. This permit and all development rights hereunder shall terminate two years from the effective date (final action date or, if in the appealable area of the Coastal Zone, 21 days after the local final action date) of this permit, or two years from the issuance of a Consolidated Coastal Development permit by the California Coastal Commission, whichever is later, unless plans for construction are commenced, a business license establishing the use is obtained or a time extension is granted, based on a written and approved request submitted prior to the expiration of the two-year period as provided in Section 21.21.406 of the Long Beach Municipal Code.
2. This permit shall be invalid if the owner(s) and applicant(s) have failed to return written acknowledgment of their acceptance of the conditions of approval on the *Conditions of Approval Acknowledgment Form* supplied by the Planning Bureau. This acknowledgment must be submitted within 30 days from the effective date of approval (final action date or, if in the appealable area of the Coastal Zone, 21 days after the local final action date). Prior to the issuance of a building permit, the applicant shall submit a revised set of plans reflecting all of the design changes set forth in the conditions of approval to the satisfaction of the Development Services Department.
3. If the Director of Development Services determines that a violation of any of the conditions of this permit has occurred, notice shall be provided to the permittee that the City intends to initiate corrective procedures in accordance with procedures set forth in Section 21.10.080 of the Long Beach Municipal Code.
4. All four sites are located within the Coastal Zone. The Pumpkin Patch site and the LCWA site are located within the local Permit Jurisdiction, while the Synergy Oil Field and City-owned site are within the State Permit Jurisdiction. In 2014, the City submitted a letter providing, pursuant to Coastal Act Section 30601.3, its consent to the California Coastal Commission assuming responsibility for processing a Consolidated Coastal Development Permit. The applicant must obtain approval of a Consolidated Coastal Development Permit from the California Coastal Commission prior to the issuance of any permits on any site by the City.
5. This Site Plan Review approval allows the following actions, described broadly as:

every five years thereafter until the 40th anniversary of the New Occupancy Date (issuance of Certificate of Occupancy for the office or warehouse building on the Pumpkin Patch site). The applicant and the City will amend the SURGE Agreement to reflect the above-referenced removals are deemed necessary by the City.

8. In the event of transfer of ownership of the property involved in this application, the new owner shall be fully informed of the permitted use and development of said property as set forth by this permit together with all conditions which are a part thereof. These specific requirements must be recorded with all title conveyance documents at time of closing escrow.
9. All conditions of approval, as well as the signed Conditions of Approval Acknowledgement Form, must be printed verbatim on all plans submitted for plan review to the Development Services Department. These conditions must be printed on the site plan or a subsequent reference page.
10. The Director of Development Services is authorized to make minor modifications to the approved plans or to any of the conditions of approval if such modifications shall not significantly change/alter the approved project. Any major modifications shall be reviewed by the Site Plan Review Committee or Zoning Administrator, respectively.
11. The property shall be developed and maintained in a neat, quiet, and orderly condition and operated in a manner so as not to be detrimental to adjacent properties and occupants. This shall encompass the maintenance of exterior facades of the building, designated parking areas serving the use, fences and the perimeter of the site (including all public parkways).
12. All structures shall conform to the Long Beach Building Code requirements. Notwithstanding this subject permit, all other required permits from the Building Bureau must be secured.
13. Any graffiti found on site must be removed within 24 hours of its appearance.
14. Separate building permits are required for signs, fences, retaining walls, flagpoles, pole-mounted yard lighting foundations and planters.
15. All required utility easements shall be provided to the satisfaction of the concerned department or agency.
16. Demolition, site preparation, and construction activities (excluding oil and gas wells, per LBMC Section 8.80.260) are limited to the following (except for the pouring of concrete which may occur as needed):

landscaped areas shall be provided with water conserving automatic irrigation systems designed to provide complete and adequate coverage to sustain and promote healthy plant life. The irrigation system shall not cause water to spray or flow across a public sidewalk.

24. All landscaped areas must be maintained in a neat and healthy condition, including public parkways and street trees. Any dying or dead plant materials must be replaced with the minimum size and height plant(s) required by Chapter 21.42 (Landscaping) of the Zoning Regulations. At the discretion of City officials, a yearly inspection shall be conducted to verify that all irrigation systems are working properly and that the landscaping is in good healthy condition. The property owner shall reimburse the City for the inspection cost as per the special building inspection specifications established by City Council.
25. Exterior security bars and roll-up doors applied to windows and pedestrian building entrances shall be prohibited.
26. All parking areas serving the Pumpkin Patch Site and LCWA Site shall provide appropriate security lighting with light and glare shields so as to avoid any light intrusion onto adjacent or abutting residential buildings or neighborhoods pursuant to Section 21.41.259. In addition to the aforementioned requirements, the parking area adjacent to the proposed visitors center on the Synergy Oil Field Site shall be in compliance with Mitigation Measure AES-2. Other security measures may be required to be provided to the satisfaction of the Chief of Police.
27. All rooftop mechanical equipment shall be fully screened from public view, with the exception of solar photovoltaic panels on structures on the Pumpkin Patch site. Said screening must be architecturally compatible with the building in terms of theme, materials, colors and textures. If the screening is not specifically designed into the building, a rooftop mechanical equipment plan must be submitted showing screening and must be approved by the Director of Development Services and Building prior to the issuance of a building permit.
28. Adequately sized trash enclosure(s) shall be designed and provided for this project as per Section 21.46.080 of the Long Beach Municipal Code. The designated trash area shall not abut a street or public walkway and shall be placed at an inconspicuous location on the lot.
29. Approval of this development project is expressly conditioned upon payment (prior to building permit issuance or prior to Certificate of Occupancy, as specified in the applicable Ordinance or Resolution for the specific fee) of impact fees, connection fees and other similar fees based upon additional facilities needed to accommodate new development at established City service level standards, including, but not limited to, sewer capacity charges, Park Fees and Transportation Impact Fees.

EXHIBIT A
LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

A PORTION OF PARCEL 3 OF CITY OF LONG BEACH LOT LINE ADJUSTMENT NO. 9704-08, RECORDED DECEMBER 12, 1997 AS INSTRUMENT NO. 97-1958951, OFFICIAL RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, BEING A PORTION OF THE EAST ONE-HALF OF SECTION 2, TOWNSHIP 5 SOUTH, RANGE 12 WEST, IN THE RANCHO LOS ALAMITOS, AS SHOWN ON PARTITION MAP RECORDED IN BOOK 700, PAGE 141 OF DEEDS, IN THE OFFICE OF THE LOS ANGELES COUNTY RECORDER, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID PARCEL 5, BEING THE SOUTHWEST CORNER OF SAID EAST ONE-HALF OF SECTION 2, AND BEING THE CENTERLINE INTERSECTION OF WESTMINSTER AVENUE (100 FEET WIDE) AND STUDEBAKER ROAD (100 FEET WIDE);

THENCE NORTH 00° 10' 03" EAST, ALONG THE WESTERLY LINE OF SAID PARCEL 3, BEING THE WESTERLY LINE OF SAID EAST ONE-HALF OF SECTION 2, AND ALSO BEING SAID CENTERLINE OF STUDEBAKER ROAD, A DISTANCE OF 400.00 FEET,

THENCE SOUTH 89° 50' 17" EAST, A DISTANCE OF 493.10 FEET;

THENCE SOUTH 64° 14' 06" EAST, A DISTANCE OF 75.63 FEET;

THENCE SOUTH 00° 52' 38" WEST, A DISTANCE OF 367.39 FEET, TO THE SOUTHERLY LINE OF SAID PARCEL 3, BEING THE SOUTHERLY LINE OF SAID EAST ONE-HALF OF SECTION 2, AND ALSO BEING SAID CENTERLINE OF WESTMINSTER AVENUE.

THENCE NORTH 89° 60' 17" WEST ALONG SAID SOUTHERLY LINE AND SAID CENTERLINE, A DISTANCE OF 556.57 FEET, TO THE POINT OF BEGINNING.

APN: 7237-019-809

**LOS CERRITOS WETLANDS OIL CONSOLIDATION
AND RESTORATION PROJECT**

**CEQA Findings of Fact and
Statement of Overriding Considerations
State Clearinghouse #2016041083**

**Prepared for
City of Long Beach**

November 2017

**Planning Bureau, Development Services Department
333 West Ocean Boulevard, 5th Floor
Long Beach, CA 90802**



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CHAPTER 1

Background

The California Environmental Quality Act (CEQA) requires that written findings be made by the lead agency in connection with certification of an environmental impact report (EIR) prior to approval of the project pursuant to *CEQA Guidelines* Sections 15091 and 15093 and Public Resources Code Section 21081. This document provides the findings required by CEQA and the specific reasons for considering the project acceptable even though the project has significant impacts that are infeasible to mitigate.

The lead agency is responsible for ensuring the adequacy and objectivity of the EIR. The City of Long Beach (City), as lead agency, has subjected the Draft EIR and Final EIR to the agency's own review and analysis process.

1.1 Project Summary

Beach Oil Minerals Partners (BOMP, the Applicant) proposes to consolidate their existing oil operations and implement a wetlands habitat restoration project (proposed project) that would also provide new public access opportunities to a portion of the Los Cerritos Wetlands. The proposed project would occur on four individual sites, which together comprise the project site. These sites are commonly known as the Synergy Oil Field site, the City Property site, the Pumpkin Patch site, and the Los Cerritos Wetlands Authority (LCWA) site. Existing oil operations on the Synergy Oil Field and City Property sites would be phased out over time, and new oil production facilities would be constructed and operated on the Pumpkin Patch and LCWA sites. The northern portion of the Synergy Oil Field site would be remediated, if necessary, and restored to a natural wetland area that would be operated as a wetlands mitigation bank. Oil operations on the southern portion of the Synergy Oil Field site and on the City Property site would continue for a fixed period of time of up to 40 years, but would ultimately be phased out as new operations are established on the Pumpkin Patch and LCWA sites. The proposed project also includes the construction of a new office building and storage structure on the Pumpkin Patch site to support the oil operations. Once the offices are relocated to the Pumpkin Patch site, the proposed project would relocate the existing office building on the Synergy Oil Field site to another location (also on the Synergy Oil Field site) and repurpose the existing site and surrounding area for use as a visitors center, a small parking area, and a perimeter trail to provide public access to the portion of the Los Cerritos Wetlands restored as part of this project.

1.2 Project Objectives

The following objectives have been established for the proposed project and will aid decision makers in their review of the project and the associated impacts. The objectives guide the intent and purpose of the proposed project:

- Restore historic tidal connection to a greater portion of the degraded Los Cerritos Wetlands through establishing a wetlands mitigation bank that will result in restoration and creation of a self-sustaining 78-acre restored coastal wetlands habitat, including habitat for special-status plant and animal species.
- Restore tidal salt marsh habitat and associated subtidal, intertidal, transitional, and upland habitats, taking into consideration potential sea level rise due to climate change.
- Provide public access and education opportunities through construction of a trail and interpretive facility, and future conveyance of privately owned property into public ownership through a land exchange.
- Reduce the footprint of oil production operations on both privately owned and City-owned portions of the Los Cerritos Wetlands to less than 10 acres of property with minimal habitat impacts.
- Improve the efficiency of oil production operations through the eventual phase out of early-20th-century oil production equipment and replacement with more-efficient and modern equipment and operations that will utilize the latest technology and operational advancements related to safety, energy, and production efficiency and concentrate production on a smaller footprint.
- Protect coastal dependent energy development by optimizing oil and gas production from the oil reserves within the City's jurisdiction that will help fund the costs of wetlands restoration and continue to provide a source of revenue to the City of Long Beach as well as short-term and long-term employment opportunities.
- Provide environmental clean-up of old landfills on private property proposed for oil production and wetlands protection, and contaminated soils on the oil field site.
- Assist the Los Cerritos Wetlands Authority in accomplishing its purpose "to provide for a comprehensive program of acquisition, protection, conservation, restoration, maintenance and operation and environmental enhancement of the Los Cerritos Wetlands area consistent with the goals of flood protection, habitat protection and restoration, and improved water supply, water quality, groundwater recharge, and water conservation" by providing for the eventual transfer through a land exchange of an approximately 156-acre, privately owned oil field into the Authority's ownership, the construction of a new visitors/interpretive center, and new public access trail.
- Help implement the Los Cerritos Wetlands Conceptual Restoration Plan by relocating existing oil production activities and making available the former oil field for wetlands restoration and future transfer of the property from private ownership to LCWA stewardship.
- Enhance gateway entry points to the City over existing industrial conditions and improve pedestrian walkability.
- Help achieve State-wide goal of sustainability by reducing reliance on foreign oil and inter-state natural gas pipelines by developing locally sourced and consumed resources using energy-efficient technology.
- Reduce energy use environmental impacts, efficiently use project-sourced natural gas, and increase project reliability/safety with a microgrid that integrates multiple on-site energy sources with high-efficiency controls on energy-using equipment.

1.3 Environmental Review Process

In conformance with CEQA and the *CEQA Guidelines*, the City of Long Beach conducted an extensive environmental review of the proposed project. The environmental review process has included:

- Completion of an Initial Study (IS)/Notice of Preparation (NOP) on April 28, 2016. The 30-day public review period extended from April 28, 2016, to May 27, 2016. The NOP was posted at the Los Angeles County Clerk's office on April 28, 2016. Copies of the IS were made available for public review at City Hall, located at 333 West Ocean Boulevard, 5th Floor; the Long Beach Main Library, located at 101 Pacific Avenue, and on the City's website (<http://www.lbds.info/planning/>).
- Completion of the scoping process where the City invited the public to participate in a scoping meeting held on May 11, 2016, at the Kettering Elementary School, Cafeteria Dining Room, 550 Silvera Avenue, Long Beach, CA. The notice of a public scoping meeting was included in the NOP.
- Preparation of a Draft EIR, which was made available for a 45-day public review period beginning July 24, 2017, and ending September 6, 2017. The scope of the Draft EIR was determined based on the City's Initial Study, comments received in response to the NOP, and comments received at the scoping meeting conducted by the City. Draft EIR Section 1.3.3, Scope of Analysis and Mitigation Measures, describes the issues identified for analysis in the Draft EIR. The Notice of Availability (NOA) for the Draft EIR was sent to interested persons and organizations, sent to the State Clearinghouse in Sacramento for distribution to public agencies, posted at the Long Beach Public Library at 101 Pacific Avenue, posted on the City's website (<http://www.lbds.info/planning/>), and sent to all property owners within at least 300 feet of the project site. The NOA was posted at the Los Angeles County Clerk's office on July 21, 2017. Copies of the Draft EIR were made available for public review at the following locations: the City's Planning Bureau, Development Services Department, located at 333 West Ocean Boulevard, 5th Floor; the Long Beach Public Library; and the City's website. In addition, the Notice of Completion was sent to the Office of Planning and Research pursuant to *CEQA Guidelines* Section 15085, for distribution to the responsible regional agencies on July 24, 2017, with a review period ending on September 6, 2017.
- Preparation of a Final EIR, including comments, the responses to comments on the Draft EIR, and revisions to the Draft EIR. The Final EIR was released for a 10-day agency review period prior to certification of the Final EIR.
- Public hearings on the proposed project were held, which included a Planning Commission hearing held on November 30, 2017, and two City Council Hearings held on January 16, 2018, and January 23, 2018.

1.4 Record of Proceedings

For purposes of CEQA and these Findings, the Record of Proceedings for the proposed project includes, but is not limited to, the following documents and other evidence:

- The NOP, the NOA, and all other public notices issued by the City in conjunction with the proposed Project.
- The Draft EIR and Final EIR for the proposed project.
- All written comments submitted by agencies or members of the public during the public review comment period on the Draft EIR.
- All responses to written comments submitted by agencies or members of the public during the public review comment period on the Draft EIR.

- All written and verbal public testimony presented during a noticed public hearing for the proposed project.
- The Mitigation Monitoring and Reporting Program.
- The reports and technical memoranda included or referenced in the Draft EIR and Final EIR.
- All documents, studies, EIRs, or other materials incorporated by reference in the Draft EIR and Final EIR.
- The Resolutions adopted by the Planning Commission and City Council in connection with the proposed project, and all documents incorporated by reference therein, including comments received after the close of the comment period and responses thereto.
- Matters of common knowledge to the City, including but not limited to federal, state, and local laws and regulations.
- Any documents expressly cited in these Findings.

1.5 Custodian and Location of Records

The documents and other materials that constitute the administrative record for the City's actions related to the project are available at the City of Long Beach Development Services Department, 333 West Ocean Boulevard, Long Beach, CA 90802. The City's Development Services Department is the custodian of the administrative record for the project. Copies of these documents, which constitute the record of proceedings, are and at all relevant times have been and will be available upon request at the offices of the Development Services Department. This information is provided in compliance with Public Resources Code Section 21081.6(a)(2) and Guidelines Section 15091(e).

CHAPTER 2

Findings and Facts

The City of Long Beach, as lead agency, is required under CEQA to make written findings concerning each alternative and each significant environmental impact identified in the Draft EIR and Final EIR.

Specifically, regarding findings, *CEQA Guidelines* Section 15091 provides:

- (a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:
 1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
 2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. 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 Final EIR.
- (b) The findings required by subsection (a) shall be supported by substantial evidence in the record.
- (c) The finding in subdivision (a)(2) shall not be made if the agency making the finding has concurrent jurisdiction with another agency to deal with identified feasible mitigation measures or alternatives. The finding in subsection (a)(3) shall describe the specific reasons for rejecting identified mitigation measures and project alternatives.
- (d) When making the findings required in subdivision (a)(1), the agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects. These measures must be fully enforceable through permit conditions, agreements, or other measures.
- (e) The public agency shall specify the location and custodian of the documents or other material which constitute the record of the proceedings upon which its decision is based.
- (f) A statement made pursuant to Section 15093 does not substitute for the findings required by this section.

The “changes or alterations” referred to in Section 15091(a)(1) may include a wide variety of measures or actions as set forth in Guidelines Section 15370, including:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensating for the impact by replacing or providing substitute resources or environments.

2.1 Format

This section summarizes the significant environmental impacts of the project, describes how these impacts are to be mitigated, and discusses various alternatives to the proposed project, which were developed in an effort to reduce the remaining significant environmental impacts. All impacts are considered potentially significant prior to mitigation unless otherwise stated in the findings.

This remainder of this section is divided into the following subsections:

- **Section 2.2, Summary of Environmental Impacts**, presents the summary of impacts of the proposed project.
- **Section 2.3, Findings on Impacts Determined to Be Less Than Significant**, presents the impacts of the proposed project that were determined in the Draft EIR to be less than significant without the addition of mitigation measures and presents the rationales for these determinations.
- **Section 2.4, Findings on Impacts Mitigated to Less Than Significant**, presents significant impacts of the proposed project that were identified in the Final EIR, the mitigation measures identified in the Mitigation Monitoring Program, and the rationales for the findings.
- **Section 2.5, Findings on Significant Unavoidable Impacts**, presents significant impacts of the proposed project that were identified in the Final EIR, the mitigation measures identified in the Mitigation Monitoring Program, the findings for significant impacts, and the rationales for the findings.
- **Section 2.6, Findings on Project Alternatives**, presents alternatives to the Project and evaluates them in relation to the findings set forth in *CEQA Guidelines* Section 15091(a)(3), which allows a public agency to approve a project that would result in one or more significant environmental effects if the project alternatives are found to be infeasible because of specific economic, social, or other considerations.

2.2 Summary of Environmental Impacts

Based on the NOP and Draft EIR, the following is a summary of the environmental topics considered to have no impact, a less than significant impact, a less than significant impact with incorporation of mitigation measures, and a significant and unavoidable impact:

- **No Impact**
 - Hazards and hazardous materials
 - Mineral resources
 - Transportation and traffic
 - Utilities and service systems
- **Less-than-Significant Impact**
 - Hydrology and Water Quality
 - Land Use and Planning

- Mineral Resources
- Population and Employment
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- **Less-than-Significant Impact with Mitigation Incorporated**
 - Aesthetics
 - Air Quality
 - Biological Resources
 - Cultural Resources
 - Geology, Seismicity, and Soils
 - Greenhouse Gas Emissions
 - Hazards and Hazardous Materials
 - Noise
 - Public Services
 - Tribal Cultural Resources
 - Energy Consumption
- **Significant and Unavoidable Impact**
 - Air Quality (violate the air quality standard and contribute substantially to an existing or projected air quality violation for construction-related VOC and NO_x emissions; result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) during construction; result in cumulative impacts to air quality during construction).

2.3 Findings on Impacts Determined to Be Less than Significant

2.3.1 Initial Study

An Initial Study was prepared by the City of Long Beach to identify the potential significant effects of the project. The Initial Study was completed and distributed with the Notice of Preparation for the proposed Project, dated April 28, 2016. The Initial Study determined that the proposed project would not have the potential to result in significant impacts to Agriculture and Forestry Resources, as described in further detail below. All other topical areas of evaluation included in the Environmental Checklist were determined to require further assessment in the EIR.

2.3.1.1 Agriculture and Forestry Resources

The project would not convert farmland to nonfarmland uses.

The project site is located within a highly urbanized area and is currently in use as privately owned or leased oil fields. No farmland, agricultural uses, or related operations are present within the project site or surrounding areas. According to the California Department of Conservation (CDC), pursuant to Farmland Mapping and Monitoring Program (FMMP), there are no farmlands located within the vicinity of the project site (CDC 2015). Therefore, the project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. This topic was not evaluated in the EIR.

Finding

No impacts to farmland would occur, and no mitigation measures would be necessary.

The project would not conflict with zoning for agricultural uses or conflict with an existing Williamson contract.

The Williamson Act of 1965 allows local governments to enter into contract agreements with local landowners with the purpose of trying to limit specific parcels of land to agricultural or other related open space use. The project sites are not zoned for agricultural use nor is it subject to a Williamson Act Contract within the vicinity of the project site (CDC 2013). Therefore, the proposed project would not conflict with any zoning for agricultural uses or a Williamson Act Contract. This topic was not evaluated in the EIR.

Finding

No impact to existing Williamson Act contracts or agriculturally zoned land would occur, and no mitigation measures would be necessary.

The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

The project site is currently developed with facilities associated with oil extraction and located in a highly urbanized area with a zoning designation of Planned Development (PD-1) within the Southeast Community Plan Area (SEADIP). The project site is not zoned as forest land or timberland. Thus, the proposed project would not conflict with forest land or timberland zoning or result in the loss of forest land or conversion of forest land or timberland to non-forest uses. This topic was not evaluated in the EIR.

Finding

No impacts to forest zoned land or timberland zoned land would occur, and no mitigation measures would be necessary.

The project would not result in the loss of forest land or conversion of forest land to non-forest use.

See response above.

Finding

No impacts to forest land or conversion to non-forest use would occur, and no mitigation measures would be necessary.

The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

As discussed above, the project site is not expected to contain farmland, forest land, or timberland. Accordingly, the project would not result in the conversion of farmland to non-agricultural uses or forest land to non-forest uses. The project site is located in a highly urbanized area and is not adjacent to existing farmland or forest lands. This topic was not evaluated in the EIR.

Finding

No impacts to forest land or agricultural use would occur, and no mitigation measures would be necessary.

2.3.2 Draft EIR

It was determined that several potential environmental effects would not result from the proposed project or would result but would not have a significant impact on the environment, and no mitigation was determined to be necessary. This determination was made based on the findings of the Draft EIR prepared for the project. The following summary briefly describes those environmental topics that were either found not to be significant or not to be significant assuming with the implementation of existing regulations, as detailed in each respective topical section of Draft EIR Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*.

2.3.2.1 Aesthetics

Impact AES-1: The project would not have a substantial adverse effect on a scenic vista.

Scenic vistas in the area include views of the Los Cerritos Wetlands complex, Los Cerritos Channel, Steamshovel Slough, and San Gabriel River in the fore- and middle-ground with the San Gabriel Mountains rising in the background.

Construction

Synergy Oil Field Site

The proposed restoration activities on the northern portion of the Synergy Oil Field site would temporarily alter scenic vistas as seen from areas surrounding the project site. Similarly, views of the southern portion of the site would temporarily be altered during construction activities. Restoration and construction activities could partially obscure scenic vistas when viewed in close proximity to the site. In addition, views of scenic vistas from public roads surrounding the site, including PCH, 2nd Street, and Studebaker Road, could be affected by the restoration and construction activities; however, views from these roadways are from the same elevation as the project site and, thus, any restoration and construction work viewed from these roads would be seen in the foreground views and restoration and construction activities would not block or obscure broader

views of background scenic vistas, such as those of the San Gabriel Mountains. Furthermore, all restoration and construction activities on the Synergy Oil Field site would be temporary in nature and, thus, would not permanently alter a scenic vista.

City Property Site

While the City Property site is within the Los Cerritos Wetlands complex, it is currently developed with oil wells and infrastructure and contains non-native species which degrade the quality of the scenic vista in this portion of the wetlands. The proposed construction and remediation activities proposed on this site would temporarily alter the conditions on the site as viewed from areas surrounding the project site, including the bike path on the San Gabriel River and 2nd Street. Construction and remediation activities could partially obscure scenic vistas when viewed in close proximity to the site. While views of this work could potentially be seen in the foreground from the San Gabriel River and 2nd Street, construction and remediation activities would not block or obscure broader views of background-scenic vistas, such as those of the San Gabriel Mountains. Furthermore, all construction and remediation activities on the City Property site would be temporary in nature and, thus, would not permanently alter a scenic vista.

Pumpkin Patch Site

The proposed construction and remediation activities proposed on this site would temporarily alter the conditions on the site as viewed from areas surrounding the project site, including the bike path on the San Gabriel River and PCH (State and County eligible scenic highway). Construction activities could partially obscure scenic vistas when viewed in close proximity to the site. Once a perimeter wall is built on the site, starting in year two, views of a majority of the construction activities would no longer be visible. The remaining views of the site would be obstructed in Year 3 when the office building and warehouse are constructed. The views looking toward the Pumpkin Patch site from the San Gabriel River Bike Trail would include views of the San Gabriel River in the foreground and the site and construction activities in the middle ground. Views of the San Gabriel River, which is considered the scenic vista, would not be obstructed. Furthermore, given that construction would occur in the middle ground, background views of the San Gabriel Mountains would remain unobstructed. Thus, views from the San Gabriel River Bike Trail of a scenic vista would not be adversely affected.

Views from PCH looking east and southeast towards the Pumpkin Patch site is currently obstructed by a chain-link fence with matting to block views of the site. In addition, the street is slightly raised over the project site and, thus, there is no view of the San Gabriel River beyond the site. Furthermore, the elevation of the San Gabriel River is below that of the Pumpkin Patch site and, as such, even if the fence were removed views of the scenic vista would be obstructed from this location. Given the already obstructed views of San Gabriel River, construction activities would not have an adverse effect on a scenic vista.

LCWA Site

Restoration and construction activities could partially obscure scenic vistas when viewed in close proximity to the site. Once a perimeter wall is built on the site, starting in year two, views of a majority of the construction activities would no longer be visible. While views of this work could potentially be seen in the foreground from the Studebaker Road and Westminster Avenue, construction and remediation activities would not block or obscure broader views of background scenic vistas, such as those of the San Gabriel Mountains.

Operation

Synergy Oil Field Site

During operation, the northern portion of the Synergy Oil Field site would be permanently restored to its natural wetland state and invasive species would be removed. There would be a permanent berm on the south side of Steamshovel Slough and the visitors center would be permanently relocated southwest of its current location and raised. Overall, once restoration and removal and/or abandonment of the oil production facilities are complete, the site would return to a more natural state as viewed from the surrounding areas. Thus, these activities would enhance the scenic vista of the Los Cerritos Wetlands. The Bixby Ranch Field Office structure, which would become the visitors center, would be visible from 2nd Street. As a CEQA historic resource, it is considered a valued landscape feature and, thus, would enhance the existing Los Cerritos Wetlands complex scenic vista. Given the enhanced features that would improve the Synergy Oil Field site, the proposed project's impact on the scenic vista of the Los Cerritos Wetlands would be beneficial.

City Property Site

After construction is complete, there would be an aboveground pipeline corridor with an 18-inch-high protective berm traversing the site between the Pumpkin Patch and LCWA sites. Upon completion of well removal and/or abandonment, areas in which wells were located would be remediated. No further operational activities would take place on the site besides pipeline maintenance and inspection. Given that the pipeline would be within an 18-inch-high berm, views from the San Gabriel River Bike Trail to the south and 2nd Street to the north would remain relatively unchanged from existing conditions. In addition, scenic vista views, including background views of the San Gabriel Mountains and foreground views of the San Gabriel River would not be altered.

Pumpkin Patch Site

During operation, the LCWA site would have a fully operational oil production facility, an 18-foot-high screen wall surrounding the site along Studebaker Road, PCH, and the San Gabriel River, a 10-foot-high wall along the eastern boundary of the site along the 100-foot buffer separating the oil operations area from the wetland habitat area, landscaping buffering the screen wall from the street, an entry monument at the corner of the site at PCH to enhance the entry into Long Beach, a 160-foot-high drilling rig, and a 120-foot-high workover rig. Views of the San Gabriel River, which is considered a scenic vista, would not be obstructed from the San Gabriel River Bike Trail. Views from PCH looking east and southeast towards the Pumpkin Patch site are currently obstructed by a chain-link fence with matting to block views of the site. Thus, there is no view of the San Gabriel River beyond the site. Views from PCH would be of the project's landscaping in the foreground, office building in the middle ground, and 18-foot-high screen wall in the background. The drilling rig would move from well location to well location and would not be a permanent fixture. The workover rig would be brought on site on a temporary basis in the future when workover of the oil wells is required; however, as described above, the elevation of the San Gabriel River is below that of the Pumpkin Patch site and, as such, views of the scenic vista are permanently obstructed from this location under existing conditions. Given the already obstructed views of San Gabriel River, operational activities would not have an adverse effect on a scenic vista.

LCWA Site

During operation, the LCWA site would have a fully operational oil production facility, a 160-foot-high drilling rig, a 120-foot-high workover rig, 10-foot high screen wall surrounding the site, and landscaping buffering the screen wall from the street. The drilling rig would move from well location to well location and would not be a permanent fixture. The workover rig would be brought on site on a temporary basis in the future. As described above, the LCWA site is not considered a scenic vista; however, distant views of the San Gabriel Mountains can be viewed from the roadways surrounding the project site. The facilities on the LCWA site would not block background views of the San Gabriel Mountains.

Finding

Impacts on scenic vistas during construction and operation of the project would be less than significant, and no mitigation measures would be necessary.

Impact AES-2: The project would not substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

PCH has been identified by Caltrans as an “Eligible State Scenic Highway,” but has not been designated as an Official State or County Scenic Highway (Caltrans 2016). Both the Synergy Oil Field and Pumpkin Patch sites are visible from PCH; however, given the disturbed and undeveloped nature of the Pumpkin Patch site, there are no scenic resources on the site. Scenic resources on the Synergy Oil Field site include the Bixby Ranch Field Office (visitors center), Steamshovel Slough, and the remaining wetland areas north of the slough. None of these scenic resources on the site is visible from PCH, nor would any of these scenic resources be damaged as a result of the proposed project. Furthermore, construction and operation of the proposed project would remove non-native invasive plant species and oil production facilities, which would enhance the scenic value of the project site.

Finding

Project-related impacts on scenic resources would be less than significant, and no mitigation measures would be necessary.

2.3.2.2 Air Quality

Impact AQ-1: The project would not conflict with or obstruct implementation of the applicable air quality plan.

CEQA Guidelines Section 15125 requires an air quality assessment to discuss any inconsistencies between the proposed project and applicable General Plans and regional plans. Regional plans that apply to the proposed project include the Southern California Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP).

A proposed project would be considered consistent with the plan if it furthers one or more policies and does not obstruct other policies. The *CEQA Air Quality Handbook* identifies two key indicators of consistency (SCAQMD 1993):

1. Whether the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
2. Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1: Increase in the Frequency or Severity of Existing Air Quality Violations

Based on the air quality modeling analysis contained in this report, with mitigation the project construction would not result in exceedances of the SCAQMD localized significance thresholds (LSTs); therefore, local concentrations of NO_x would not exceed the ambient air quality standards. Therefore, short-term construction activities would not increase the frequency or severity of existing air quality violations.

The proposed project operation would increase regional emissions, but the increase would be less than the SCAQMD regional thresholds except for NO_x. The operational LST analysis indicates that operation of the project would not result in exceedances of the SCAQMD LSTs; therefore, local concentrations of NO_x would not exceed the ambient air quality standards, and local air quality impacts would be less than significant. Because the project is not projected to impact the local air quality, the project is found to be consistent with the AQMP for the first criterion.

Additionally, the project is proposing to use an energy-efficient microgrid system which would provide the energy needed for the drilling rigs and supporting equipment, pumps, two electric vehicle charging stations, and other equipment.

Criterion 2: Exceedance of Assumptions in the AQMP

Consistency with the AQMP assumptions is determined by performing an analysis of the project with the assumptions in the AQMP. The AQMP assumptions are based upon projections from local general plans. Projects that are consistent with the local general plan are consistent with the AQMP assumptions. The emission projections for the project show that the project would not impact local air quality significantly in excess of the ambient air quality standards.

Additionally, the project would comply with any new requirements specified in the 2016 AQMP. The project would result in the replacement of old facilities that tend to leak VOC at flanges, valves, pumps, and other equipment with newer equipment that would essentially eliminate these leaks. The proposed project would be consistent with Measure CMB-03 of the AQMP which calls out for replacing flares with turbines or other equipment that make use of any natural gas generated. Therefore, the project in terms of its design and operation appear to be consistent with the control measures contained in the 2016 AQMP.

Finding

The proposed project would be consistent with the SCAQMD AQMP and, therefore, impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.3 Biological Resources

Impact BIO-5: The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

There are no wildlife movement corridors within or adjacent to the project site. Terrestrial wildlife movement within the project site is primarily localized due to the surrounding development, including adjacent roadways. The Alamitos Bay and Los Cerritos Channel could provide limited movement for marine fish, mammals, or reptiles species (i.e., green sea turtle) to move into and out of the project site via Steamshovel Slough; however, Steamshovel Slough lacks an outlet and does not have connectivity to other water bodies allowing it to provide a movement corridor for marine animals to move through the project site. Further, Steamshovel Slough would be avoided during construction activities and no in-water work would occur.

Finding

Implementation of the proposed Project would not interfere substantially with the movement of any fish or wildlife species, or with established wildlife corridors, or impede the use of native wildlife nursery sites, and therefore, impacts would be less than significant, and no mitigation measures would be necessary.

Impact BIO-6: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The following discussion provides an evaluation of the project's consistency with applicable plans and policies that have been adopted for the purpose of protecting biological resources.

Tree Protection

Potential impacts to street trees protected by the City of Long Beach's Tree Maintenance Policy could include tree removal or trimming. Tree removal would result in a permanent impact, while trimming would be considered a temporary impact. A permit from the City of Long Beach Department of Public Works would be required prior to the removal of any street trees. Trees that are removed must be replaced with an approved 15-gallon tree to be planted in an appropriate area. Therefore, the project would be consistent with tree protection policies.

Potential ESHA Pursuant to California Coastal Act

The proposed project is a restoration project whose implementation would require work in potential environmentally sensitive area (ESHA). As such, there is no other way to accomplish the project purpose without impacting potential ESHA. Pursuant to California Coastal Act (CCA) Section 30240, impacts to ESHA are generally limited to activities such as habitat restoration as noted by the Coastal Commission Staff (CCC as cited in Glen Lukos Associates (GLA) 2017d):

The Coastal Act establishes a high standard for protection of areas that are identified as environmentally sensitive. Only resource-dependent uses, such as habitat restoration, are allowed within an environmentally sensitive area (ESHA). Final determinations regarding ESHA will be made by the CCC.

Synergy Oil Field Site

There are 14 wildlife species and associated habitats that are potential ESHA on the Synergy Oil Field site: American peregrine falcon, Belding's Savannah Sparrow, California least tern, Pacific green sea turtle, California brown pelican, Western snowy plover, white-tailed kite [nesting only], mudflat tiger beetle, salt marsh wandering skipper, sandy beach tiger beetle, senile tiger beetle, Western beach tiger beetle, western tidal-flat tiger beetle, and northern harrier [nesting only]. Of these, 4 would not be affected by project grading (Pacific green sea turtle, sandy beach tiger beetle, senile tiger beetle, western tidal-flat tiger beetle) and 2 are associated with habitat present on the site that does not have potential for nesting (foraging white-tailed kite and northern harrier). Project grading would have minimal impact to habitat associated with the remaining 8 wildlife species and would be necessary to establish expanded tidal areas as a component of the wetland reestablishment and rehabilitation aspect of the project. As habitat restoration could be considered a use dependent on those resources, as set forth in CCA Section 30240, temporary impacts could be determined to be consistent with the CCA. Following the completion of grading, the potential habitat areas would be expanded for the 8 wildlife species due to the addition of tidal channels, salt marsh, and mudflats.

There are three special-status plants that are potential ESHA: southern tarplant, estuary seablite, and woolly seablite. Woolly seablite would not be affected by project grading. Project grading would have minimal impact to habitat associated with the southern tarplant and estuary seablite, and is necessary to establish expanded tidal connection associated with the wetland reestablishment, therefore the impacts could be allowed under the CCA. It is also important to note that estuary seablite is included in the plant palette and there will be a substantial net increase in this species with the wetland reestablishment program.

City Property Site

Special-Status Wildlife. The City Property site does not support habitat for wildlife species that are potential ESHA and as such there would be no potential impacts to ESHA.

Special-Status Plants. Limited areas of the City Property site support a scattered small population of southern tarplant that occurs within areas of native alkali meadow, mulefat scrub and coastal brackish marsh, which could potentially be considered ESHA. Other areas occupied by the southern tarplant occur in highly disturbed areas or are limited in number and would likely not be considered ESHA. No potential impacts to ESHA would occur.

Sensitive Natural Communities. The City Property site includes one special-status vegetation alliance, pickleweed mats, which corresponds to southern coastal saltmarsh and could be determined to be ESHA; however, the proposed pipeline that would traverse the site fully avoids this alliance. No potential impacts to ESHA would occur.

Pumpkin Patch Site

Sensitive Natural Communities. The Pumpkin Patch site includes areas of non-tidal pickleweed mats that could potentially be determined to be ESHA; however, there would be no construction or operational activities proposed for the lower area; therefore, there would be no potential impacts to ESHA.

Special-Status Wildlife. The Pumpkin Patch site does not support habitat for wildlife species that are potential ESHA and as such there would be no potential impacts to ESHA.

GLA has completed a 2-year protocol of focused surveys for listed fairy shrimp, and the surveys have identified only the common versatile fairy shrimp from a seasonal ponding feature at the northeast corner of the site. No listed fairy shrimp occur on the site. No potential impacts to ESHA would occur.

Special-Status Plants. The Pumpkin Patch site does not support habitat for special-status plants that are potential ESHA and as such there would be no potential impacts to ESHA. Similarly, there are no special-status vegetation alliances on the Pumpkin Patch site that exhibit potential for ESHA that would be affected by the project; therefore, no potential impacts to ESHA would occur.

LCWA Site

The LCWA site does not contain any habitats capable of supporting special-status plants or animals and does not support native vegetation alliances with a Rarity Ranking of S3 or lower; therefore, the site does not contain any areas that could potentially be considered ESHA.

Finding

The project would be consistent with the City of Long Beach's Tree Maintenance Policy and the California Coastal Act policies related to ESHA; therefore, impacts would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative impacts during project construction and project operation were analyzed in the Draft EIR. During project construction, two cumulative projects were identified that could potentially contribute cumulative impacts: the Ballona Wetlands Restoration Project and single-family homes and hotel rooms proposed at 1st Street and Marina Drive in Seal Beach. The construction-related impacts of both of these projects would be temporary in nature and would be mitigated to less than significant or avoided by design; therefore, the cumulative impacts during construction would not be cumulatively considerable (less than significant). During project operations, the nearby cumulative projects identified included the Ballona Wetland Restoration Project and the Bolsa Chica Lowlands Restoration Project. Each project would be required to comply with federal, state, and local regulations pertaining to the protection of biological resources. Additionally, these two projects and the proposed project would have an overall net benefit upon coastal wetlands and sensitive biological resources and, therefore, cumulative impacts during project operation would not be cumulatively considerable (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.4 Geology and Soils

Impact GEO-1: The project would not expose people or structures to potential substantial adverse effects as a result of rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

The Newport-Inglewood Fault Zone is designated by the State as an Alquist-Priolo Earthquake Fault Zone (i.e., on a state-recognized active fault trace) that crosses the Synergy Oil Field and City Property sites, as

shown in Draft EIR Figure 3.5-2. In the event of an earthquake along the Newport-Inglewood Fault Zone, fault rupture could occur on these two sites. The Newport-Inglewood Fault Zone passes near but not through the Pumpkin Patch and LCWA sites.

Construction

Synergy Oil Field Site

Proposed Synergy Oil Field site construction activities within the fault zone include the relocation of the existing building (to be repurposed as a visitors center) to the southwest corner of the Synergy Oil Field site outside of the fault zone by approximately 1,000 feet which would reduce the risk of fault rupture damaging the building or injuring people. Ninety-five percent of aboveground pipelines and all storage tanks would be removed from the Synergy Oil Field site during the first phase of the project, with the remaining infrastructure removed later as wells are removed. Oil wells and associated infrastructure would be removed if the oil production in each well decreases to less than one full barrel of oil per day for a period of 18 consecutive months or within 40 years from the New Occupancy Date. The habitat restoration construction activities would not alter the seismic environment or increase the risk of fault rupture.

City Property Site

Similar to the Synergy Oil Field Site, the proposed construction activities on the City Property site would involve the removal of existing oil production wells and associated infrastructure if the oil production in each well decreases to less than one full barrel of oil per day for a period of 18 consecutive months or within 40 years from the New Occupancy Date. Two to three of the wells on the City Property site are located within the Alquist-Priolo fault zone (Newport-Inglewood Fault) and would be plugged and abandoned at some time in the future, which would reduce the risk of damage to an operating oil well. An oil pipeline system and utility corridor would be constructed to transport oil from the Pumpkin Patch site, through the City Property site, to the LCWA. The likelihood of a fault rupture occurring during construction would be relatively low with minimal risk of injury or property damage because the pipeline would be constructed over a relatively short period of time and does not include habitable structures (workers would not be on site for extended time periods and within or near tall structures that could collapse or shed debris during a seismic event).

Pumpkin Patch and LCWA Sites

The Pumpkin Patch and LCWA sites are not located within the Newport-Inglewood Fault Zone. Therefore, although fault rupture is possible along new or unknown fault traces, the likelihood of a fault rupture occurring during construction would be relatively low with minimal risk of injury or property damage because construction would occur over a relatively short period of time and the buildings would not be occupied until after construction is complete.

Operation

Induced Fault Rupture, Seismic Event, and/or Seismic-Related Ground Failure

The older wells on the Synergy Oil Field, City Property, and Pumpkin Patch sites would be replaced with newer wells installed on the Pumpkin Patch and LCWA sites over time. Some of the oil production zones associated with the newer wells could be close to or bordered by the Newport-Inglewood Fault Zone. The removal of oil and produced water from the subsurface would reduce the volume of fluids in the oil production

zone and, if not replaced, could result in a vacancy or voids that could cause subsidence that in turn could trigger a fault rupture, seismic event, and/or seismic-related ground failure.

To prevent subsidence, produced water that has been separated from the oil or water from water source wells would be injected back into the production zone. Consistent with the California Division of Oil, Gas, and Geothermal Resources (DOGGR) regulations (see DOGGR regulations in Draft EIR Section 3.5.3), all injection wells would be equipped with an accurate, operating pressure gauge or pressure recording device and underground reservoir pressures would be closely monitored. The injection would be specifically and only back into the same oil production zone and not into underlying units; some induced seismic activity has been attributed to this practice.

Impacts Related to the Future Restoration Area on Synergy Oil Field

For the Synergy Oil Field site, there would be no above ground structures or large amounts of people located within the Newport-Inglewood Fault Zone and exposed to fault rupture. Restoration monitors would inspect the site on a routine but occasional basis. The trail would only be open to the public for specific daytime hours, thereby limiting the use and presence of persons on site. Therefore, exposure of people to fault rupture impacts on the Synergy Oil Field site during project operation would be unlikely.

Impacts Related to the Future Pipeline and Utilities across City Property Site

A pipeline system and utility corridor would be constructed to transport oil, water, natural gas, electricity and communication lines from the Pumpkin Patch site through the City Property site to the LCWA site. The proposed pipelines, electrical lines, and control cables were evaluated for potential displacement or damage in the event of a seismic event (Honegger 2016). The study identified seismic design elements to accommodate the anticipated maximum amount of displacement and minimize the damage risk from rupture. The study concluded that maximizing an aboveground pipeline configuration would enable the pipeline to accommodate a larger amount of fault offset and still operate safely. The aboveground fault crossing design would allow relative lateral displacement and relative axial displacement to be accommodated. In addition, the pipeline system would be designed to shut down in the event that a seismic event compromised the system. Implementation of the geotechnical recommendations for pipeline safety is a standard condition (required by law) required by DOGGR.

Impacts Related to the Future Structures on Pumpkin Patch and LCWA sites

As previously discussed, the Pumpkin Patch and LCWA sites are not located within the Newport-Inglewood Fault Zone. Therefore, although fault rupture is possible along new or unknown fault traces, the likelihood of a fault rupture occurring during operations would be relatively low.

Finding

Impacts related to fault rupture during construction and operation would be less than significant, and no mitigation measures would be necessary.

Impact GEO-4: The project would not expose people or structures to potential substantial adverse effects as a result of seismic-induced landslides.

The project area has a relatively flat topography. Based on a review of aerial photographs and available geotechnical reports and topographic conditions, no landslides are present on or at a location that could impact

the project site. The proposed project facilities would not alter the topography so substantially as to introduce the potential for landslides to occur on site.

Finding

No impact from seismic-induced landslides would occur, and no mitigation measures would be necessary.

Impact GEO-5: The project would not result in substantial soil erosion or the loss of topsoil.

Construction

Because the overall footprint of construction activities would exceed 1 acre, the proposed project would be required to comply with the *NPDES [National Pollutant and Discharge Elimination System] General Permit for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ) (Construction General Permit), and the Long Beach Storm Water Management Program Manual, all of which are described in Draft EIR Section 3.5.3 of the. These state and local requirements were developed to ensure that stormwater is managed and erosion is controlled on construction sites. The Construction General Permit requires preparation and implementation of a stormwater pollution prevention plan (SWPPP), which requires applications of BMPs to control runoff and runoff from construction work sites.

Although all of the four individual sites that comprise the project site are entirely within disturbed areas, the construction activities would be purposely designed to retain and restore what topsoil there is and reuse that soil to restore the ecosystem.

- Soil at the Synergy Oil Field site would be rearranged for habitat restoration. No topsoil would be exported off site unless the topsoil has been contaminated with petroleum hydrocarbons above action levels requiring off-site disposal.
- At the City Property site, some fill would be imported to build a berm to protect the aboveground pipeline and utilities that would cross the eastern portion of the site; no topsoil would be exported.
- At the Pumpkin Patch site, the buried landfill materials may be excavated and removed, requiring the import of clean fill for the excavation; no existing clean fill or topsoil would be exported. If removal of the landfill is not necessary, approximately 21,000 cubic yards of soil would be graded and approximately 19,000 cubic yards of soil would be exported off site.
- The LCWA site was previously raised by the placement of imported fill; no native topsoil is present. Therefore, there would be no impacts related to the loss of topsoil.

Operation

The proposed project would reconnect Steamshovel Slough with the marshplain to the south, which would increase the amount of water moving on the site with the tides, and could in turn cause the slough to experience some erosion; however, hydraulic modeling showed that the increased velocities in the slough due to the proposed project would not be high enough to cause wide-spread erosion, nor would they require erosion and/or bank protection (M&N 2017). After some initial channel adjustment, erosion during typical tides is expected to be minimal.

In a stable estuary, mature marshes remain in a dynamic equilibrium between erosional and depositional processes. The marsh vegetation and its root structures help hold sediments in place, so the marsh would be expected to capture sediment running onto the site, reducing erosion.

The Synergy Oil Field, Pumpkin Patch, and LCWA sites would be required to comply with the Long Beach MS4 Permit and would be integrated into the City stormwater system. In addition, all aboveground structures with the exception of new wells and areas of well removal would be required to comply with the City of Long Beach low-impact development (LID) requirements and the LID Plan prepared for the Pumpkin Patch site, LCWA site, and visitors center (Wilson Mikami 2017). The LID plan describes the BMPs that would control surface water such that erosion would not occur.

Finding

With compliance with regulations discussed above, impacts associated with soil erosion during construction and operation would be less than significant for all project components, and no mitigation measures would be necessary.

2.3.2.5 Hazards and Hazardous Materials

Impact HAZ-1: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal, or reasonable foreseeable upset and accident conditions that release hazardous materials.

Demolition and Building Relocation

The project includes the demolition and removal of all oil storage tanks and 95 percent of all pipelines. In addition, the existing Synergy office building would be relocated to the southwest corner of the site and repurposed for use as a visitor center. The following discussion analyzes anticipated hazardous materials issues:

- **Asbestos-Containing Material (ACM) and Lead-Based Paint (LBP):** The tanks, pipelines, and existing office building may contain ACM and/or LBP which, if disturbed or removed, would trigger a requirement by South Coast Air Quality Management District for ACM and/or 8 CCR 1532.1 for LBP to prepare an ACM Management Plan and/or a LBP Management Plan, and retain a state-licensed ACM and/or LBP contractor to prepare and implement the management plan(s).
- **Pipelines:** Pipelines would be removed from service, cleaned, and disposed of per DOGGR and California Department of Toxic Substances Control (DTSC) requirements, including the utilization of adequate spill containment equipment and practices.
- **Aboveground Storage Tanks:** ASTs would be removed from service, cleaned, demolished, and the material disposed of per regulatory DOGGR and DTSC requirements.
- **Petroleum Hydrocarbon Affected Soil:** Previous investigations indicate that some of the soil on the Synergy Oil Field and City Property sites around the storage tank farms and near the Steamshovel Slough have soils with elevated concentrations of diesel and gasoline range total petroleum hydrocarbon (TPH), lead, and naphthalene. Approximately 24,000 tons of impacted soils would be excavated from the HA-3 and HA-5 sample locations on the Synergy Oil Field site and hauled to a disposal facility, likely the Simi Landfill in Simi Valley, California, and 200 tons of impacted soil from the HA-9 sample location near Steamshovel Slough on the Synergy Oil Field site hauled to Waste Management at Kettleman Hills Landfill, in Kettleman City, California. Additional sampling is proposed for the City Property site to further identify areas where chemical concentrations exceed

screening levels (AEC 2017d); however, the nature of the hydrocarbon-impacted soils on the City Property site is assumed to be consistent with the contamination identified around the three sample sites on the Synergy Oil Field site. The soil on the Synergy Oil Field and City Property sites would be excavated to the lateral extent of contamination above screening levels described in Draft EIR Section 3.7.3, Regulatory Framework.

Construction

Construction activities are required to comply with numerous hazardous materials and storm water regulations designed to ensure that hazardous materials are transported, used, stored, and disposed of in a safe manner to protect worker safety, to reduce the potential for a release of construction-related fuels or other hazardous materials to affect storm water and downstream receiving water bodies, and to respond to accidental spills, if any. The numerous regulations discussed in Draft EIR Section 3.7.3 would require measures for the safe transportation, storage, handling, and disposal of hazardous materials used for construction, including appropriate containers, secondary containment to contain a potential release. The construction contractors would be required to prepare an SWPPP for construction activities according to the NPDES General Construction Permit requirements. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction and describe spill prevention measures, equipment inspections, equipment and fuel storage, and protocols for responding immediately to spills.

Well Plugging and Abandonment

The project includes the phased plugging and abandonment of 53 existing oil wells on the Synergy Oil Field, City Property, and Pumpkin Patch sites. A well is plugged in a manner that prevents fluid from migrating between underground rock layers. A well operator must also comply with regulations for plugging and abandonment of oil wells stipulated in Public Resources Code (PRC) Section 3229, Division 3, and California Department of Health Services regulations in Section 30346 of CCR Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 7.

Well Drilling and Operation

The proposed production and injection wells would be drilled using oil well drilling techniques that include multiple approaches to contain fluids, including: using drilling mud in a closed system, installing conductor casing to prevent fluids from entering shallower aquifers, and once the drilling is completed, pumping out the drilling mud and placing the cuttings and drilling mud in a storage container for off-site hauling and disposal. Non-corrosive, environmentally inert, biodegradable additives might be used to keep the borehole open, prevent corrosion, increase mud weight, and prevent mud loss. In addition, all wells would be installed in well cellars designed to contain fluids, as described in an Oil Drilling and Production Overview white paper (BOMP 2017a).

During drilling, and initially during production for a period of time after a well has been drilled, there may be time periods and within zones of the reservoir where substantial pressures are encountered. If a zone of high pressure is encountered during drilling, a pressurized release could occur. Risks associated with a drilling blowout would be associated with either a production or injection well.

Various features incorporated into the well design and the location and characteristics of the oil field reduce the risk of a well blowout. All wells would be equipped with blowout prevention equipment (BOPE), which are designed to prevent the uncontrolled flow of well bore fluids through the casing, by either containing the

flow completely or by diverting it. Requirements for casing and BOPE are stipulated in Section 3219, Division 3, of the PRC and several sections of CCR Title 14, particularly Section 1722.5. Additionally, the project will include venting to flare and non-cascading shutdown systems. Due to the long history of oil extraction from the various oil fields in Long Beach, the pressure in the reservoirs has decreased. Drilling will likely be in fault blocks that have already experienced some depletion which has resulted in decreasing the amount of pressure in the reservoir. Moreover, California reservoirs are known to not be abnormally pressured.

If none of the wells encounter a pressurized reservoir and with a functioning BOPE, potential impacts from drilling would be less than significant; however, and though very unlikely, if a pressurized reservoir were encountered, the BOPE system, and other safety measures employed during the drilling process, including operator training, will minimize the potential impacts from a well blowout scenario. Given these measures and the remote likelihood of occurrence given the characteristics of California reservoirs with decreased pressure, the potential impacts of a well blowout during drilling would be considered less than significant.

During the oil extraction process, oil, water, and natural gas are brought to the surface from the production formation. Once these components reach the surface, they are separated and processed. This project proposes to inject the produced water back in to the formation from which it came, injecting sufficient quantities of water to replace the volume of fluids extracted. Corrosion inhibitors, scale inhibitors, biocides, and/or oxygen scavengers may also be added to the water prior to injection. Water injection activities to maintain underground pressures, and serves to prevent subsidence, are heavily regulated by DOGGR, under provisions of the PRC and the federal Safe Drinking Water Act. The project's water injection wells (Class II injection wells) fall under DOGGR's Underground Injection Control (UIC) program, which is monitored and audited by the USEPA. The main features of the UIC program include permitting, inspection, enforcement, mechanical integrity testing, plugging, and abandonment oversight, data management, and public outreach. With compliance with existing regulations, and inasmuch as the injected produced water would meet Class II standards, impacts would be reduced to a less-than-significant level.

Operation

As noted above, the operation of oil production and injection wells, pipelines, and associated infrastructure is regulated by DOGGR and other federal, state, and local regulations discussed in Draft EIR Section 3.7.3:

- **Pipeline and Utility Corridor:** The project involves the operation of an approximately 2,200-foot aboveground pipeline system and utility corridor through the City Property site connecting the Pumpkin Patch site to the LCWA site. This pipeline would be subject to federal regulations (49 CFR Part 192 and 49 CFR Part 195) that mandate hydrostatic testing of new, cathodically protected pipelines prior to placing the pipeline into operation. Additionally, the connecting pipeline would be inspected in accordance with City of Long Beach Department of Transportation requirements and state and federal regulations to ensure the ongoing integrity of the pipeline. Other inspection and maintenance of the connecting pipeline may include the use of pigs, devices inserted into the pipeline, to clean and/or inspect the pipeline for damage that has affected the pipeline wall thickness or shape of the pipe. Emergency isolation valves and shutdown instrumentation would be regularly tested for set points and functionality. Installation of fiber optic lines would detect leaks and seismic accelerometers would detect seismic activity. The pipeline would be treated to decrease the potential for corrosion. An earthen berm up to approximately 18 inches high would be installed on each side of the pipeline and would be designed to contain the estimated spill volume in the unlikely event of a pipeline spill or rupture.

- **Storage Tanks:** The project includes the operation of two storage tanks on the Pumpkin Patch site and four tanks on the LCWA site (ranging from 2,000 barrel to 28,000 barrel tanks that would store oil or water). Each tank would be fixed-roof and gas-blanketed design which eliminates direct emissions from tanks by capturing tank vapors through a vapor recovery system. All tanks would be equipped with leak detection systems, overfill protection, instrumentation to monitor and control level, and instrumentation to monitor temperature and pressure, and would have pressure relief valves. The tanks would also sit in secondary containment basins designed to hold the contents of the largest tank, plus a 25-year storm event. All tanks would be designed in accordance with the API Standard for Welded Steel Tanks for Oil Storage (API-650), which is the industry standard.
- **Oil Processing Facility:** The project would be equipped with a computerized control, monitoring, and communication systems, which are generally designed to monitor and control all process equipment that would operate within the facility, and used to detect and prevent an upset or release of material. Upon detection of a process upset, the operator would have the capability to shut down the affected systems. The operator console in the new office building would be staffed 24 hours a day. The Supervisory Control and Data Acquisition (SCADA)¹ system would provide the ability to control systems operation from the Operations Building and respond to alarms that are initiated when operating conditions fall outside established parameters. Equipment would typically be provided with independent automated shutdown instrumentation as well as remote indication with both pre-alarms and shutdowns, providing redundancy in safety systems. The building would be provided with an uninterruptible power supply, a diesel emergency generator, and a gas and fire detection systems and a fire suppression system. The oil processing facilities would be subject to the Beach Oil Minerals Partners (BOMP, the Applicant) mechanical integrity requirements as well as federal regulation (29 CFR Section 1910.119), the federal OSHA process safety management of highly hazardous chemicals.
- **Microgrid and Natural Gas Turbine System:** The turbines would be self-contained in an all-steel full length enclosure which would be weatherproof, insulated, sound-attenuated, and assembled to mount on the generator base frame. The enclosure incorporates a ventilation system, dust protection system, fire and gas detection and monitoring system, and a fire suppression system. The enclosure has a positive pressure to prevent the entry of potentially hazardous external atmospheres through the enclosure seams. A differential pressure switch is provided to indicate an alarm when low pressures are detected. Fire and gas monitoring and detection are managed by a separate control system that interfaces with the main unit control system. The detection of combustible gas concentrations above established levels generates an alarm or a package shutdown, as appropriate. The detection of fire or excessive heat results in the immediate shutdown of the package and activation of the fire suppression system, using CO₂ as the extinguishing agent. All gas turbine systems would be designed in accordance with the API Standard for Gas Turbines for the Petroleum, Oil, and Gas Industry Services (API-616), which is the industry standard.
- **Odorant:** Other possible upset scenarios associated with the gas operations include release or spill of the utilized odorant. As gas is typically odorless, a sulfur based odorant (mercaptan) is added to aid in leak detection. Mercaptan is colorless gas with a distinctive putrid smell. At very high concentrations, it is highly toxic and affects the central nervous system. Its penetrating odor provides warning at dangerous concentrations. All odorant will be properly stored on site and provided in secondary containment systems.
- **General Office Building and Visitors Center:** The office building and visitors center would use small quantities of cleaning products and occasional paints, solvents, and thinners for routine

¹ SCADA is a control system that uses computers, networked data communications, and graphical user interfaces for high-level process supervisory management, along with other peripheral devices such as programmable logic controllers, discrete controllers, field sensors, and actuators to interface to the process plant.

maintenance. The Hazardous Management Business Plan (HMBP) would require the materials be stored and labeled in appropriate containers.

Finding

With compliance with existing regulations, policies and industry standards and implementation of measures identified above, the impacts would be reduced to a less-than-significant level, and no mitigation measures would be necessary.

Impact HAZ-2: The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

As discussed in Draft EIR Section 3.7.2, there are no schools located within 0.25 mile of the project site. Therefore, there would be no impacts related to hazardous materials near schools.

Finding

No impacts related to hazards or hazardous materials within 0.25 mile of an existing or planned school would occur, and no mitigation measures would be necessary.

Impact HAZ-4 The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Construction

The proposed project would not interfere with the designated agency's responsibilities and reporting in the event of an emergency because no roads would be closed. All construction activities would occur within the four individual sites. In addition, construction of the oil pipeline that would run from the LCWA site to the City Property would use horizontal drilling techniques that would not require street closures because the pipeline and associated utilities would pass beneath the adjacent roadways. Construction vehicles periodically transporting equipment and materials would use public roads but would not affect the carrying capacities of the roadways.

Operation

The project facilities would be protected by a continuously pressurized firewater loop fed by a Long Beach Water Department (LBWD) water main. The system would supply water to multiple hydrants, firewater monitors, and foam monitors located on the project site. Each fire hydrant would be equipped with a fire hose and nozzles. The local LBWD water main can provide adequate flow and pressure to the site with no additional need for firewater storage tank or pumps. The new office building would be provided with a sprinkler system in accordance with City requirements. The turbine system enclosure is equipped with a CO₂ fire suppression system. In addition to the BOPE on the wells, a foam system for fire suppression will be installed on the oil storage tanks to address the potential for fires involving these facilities.

As analyzed in Impact HAZ-1, released fluids from a pipeline rupture would remain within the containment system and not migrate off site. Emergency response or emergency evacuation plans would not likely be impacted due to pipeline spills.

In addition, the proposed project would not interfere with the designated agency responsibilities and reporting in the event of an emergency because no roads would be closed. All operation activities would occur within the four individual sites. The operation vehicles periodically transporting equipment and materials would use public roads but would not affect the carrying capacities of the roadways, as discussed in Draft EIR Section 3.15, *Transportation and Traffic*.

Finding

With implementation of adequate fire detection and suppression systems, emergency response or emergency evacuation plans would not be likely be impacted due to project-related fires; therefore, potential impacts would be less than significant, and no mitigation measures would be necessary.

Impact HAZ-5 The project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

As discussed in Draft EIR Section 3.7.2, the four individual sites are not located within very high or high fire hazard severity zone. Therefore, there would be no impact relative to wildland fires.

Finding

No impacts related to wildland fires would occur, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative impacts during project construction and project operation were analyzed in the Draft EIR. During project construction, none of the cumulative projects geographically overlap with the proposed project. Additionally, all cumulative projects would be subject to the same regulatory requirements, including the implementation of health and safety plans, soil and groundwater management plans, and ACM/LBP management plans, as needed. Cumulative projects involving the potential releases of hazardous materials also would be required to remediate their respective sites to the same established regulatory standards. This would be the case for each project regardless of the number, frequency, or size of the release(s), or the residual amount of chemicals present in the soil from previous spills. Therefore, while it is possible that the proposed project and cumulative projects could result in releases of hazardous materials at the same location and at the same time (e.g., two trucks carrying hazardous materials), the responsible party associated with each spill would be required to remediate site conditions to the same established regulatory standards. The residual less-than-significant effects of the proposed project that would remain after mitigation would not combine with the potential residual effects of cumulative projects to cause a potential significant cumulative impact because residual impacts would be highly site-specific. Accordingly, no significant cumulative impact with respect to the use of hazardous materials would result. Therefore, the proposed project would not cause or contribute to a cumulatively significant impact with respect to the use of hazardous materials during construction activities (less than significant). Although the locations of oil production wells and pipelines would change, all oil would still be piped off and the transport would not be substantially changed. Therefore, this would not result in a significant change over existing conditions. In addition, the replacement of the older wells and pipelines with newer wells, pipelines, and associated equipment would result in a decrease in the potential for spills.

Therefore, the proposed project would not cause or contribute to a cumulatively significant impact with respect to the use of hazardous materials during operations (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.6 Hydrology and Water Quality

Impact HY-1: The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality.

Construction

Construction of the proposed project facilities would involve the use of hazardous materials and ground-disturbing activities which would expose and rework soils for periods of time. If the excavation of soil releases sediment to surface waters or hazardous materials are accidentally released, these pollutants could mix with runoff on site and result in sedimentation and/or contamination of receiving water bodies such as the Los Cerritos Channel, Steamshovel Slough and associated wetlands, or the San Gabriel River. The drilling of oil wells could adversely impact the water quality of non-oil-production zones if drilling muds or oil escape the well boreholes and enter aquifers with beneficial uses other than oil production. The construction activities could damage the well seals of previously plugged and abandoned oil production wells or injection wells, which could contaminate aquifers.

- **Construction of Oil Wells:** As described above under Impact HAZ-1, the proposed production and injection wells would be drilled using oil well drilling techniques that include multiple approaches to contain fluids. Numerous regulations required by the state DOGGR would require measures for the safe transportation, storage, handling, and disposal of hazardous materials used for the drilling and construction of wells, including appropriate containers, and secondary containment to contain a potential release. In addition, conductor casing would be used to seal off non-oil-producing layers, preventing drilling mud or oil from entering aquifers.
- **Construction over the Location of Wells:** Construction activities have the potential to damage plugged wells and break the subsurface seals to aquifers. Similarly, construction activities would have the potential to damage active and idle wells, with the same potential to cross contaminate aquifers. The most northerly plugged wells on the Synergy Oil Field site would be located within the restoration area where grading activities would occur. The locations of the one active and one plugged well on the Pumpkin Patch site would not be within an area of construction. The location of the one plugged well on the LCWA site is located along Second Street and would not be within an area of construction. Seven wells on the City Property site are located near but just west of the alignment of the proposed aboveground pipeline system and utility corridor and would not be within an area of construction. Numerous regulations are required by DOGGR to manage oil field operations, including requirements that site owners track the locations of all wells in perpetuity, including previously plugged and abandoned wells, and prohibit construction activities that would damage the well seals. Construction contractors would be required to mark and avoid all well locations (active, idle, and plugged) as a condition of project approval.
- **Landfill Remediation on Pumpkin Patch:** If it is determined that removal of the landfill at the Pumpkin Patch site is required, remediation of the landfill would require the following work:
(1) removal from the site of the dry trash, which would be hauled to a landfill for disposal (see

Section 3.17, *Utilities and Service Systems*, for landfill locations and capacities), and (2) removal of “wet trash” using excavation equipment with a dredging bucket so that once the wet trash is removed, the water would be allowed to drain within the confines of the excavation. Wet trash excavation would require the placement of the wet trash on a rack or other platform in the landfill excavation pit where the trash would be allowed to dry before it is transported to a landfill. Analytical testing would be used to characterize the waste as hazardous or nonhazardous and identify the appropriate disposal location. Nonhazardous waste would be hauled to a Class II or III disposal facility and hazardous waste would be hauled to a Class I or Class II facility, likely the Kettleman Hills Landfill. It is assumed that approximately 63,000 cubic yards of waste would be exported, and approximately 45,000 cubic yards of clean dirt would be imported.

- **Construction of All Other Structures:** Because the overall footprint of construction activities would exceed 1 acre, the proposed project’s ground-disturbing activities would be required to comply with the NPDES Construction General Permit. The Construction General Permit would require the preparation and implementation of an SWPPP, which would include implementation of BMPs to control run-on and run-off from construction work sites. The BMPs would include a variety of measures that would substantially reduce or prevent erosion from occurring during construction. In addition, the project would be required to comply with the Long Beach Municipal Code for stormwater control.

Operation

Operation of the proposed project facilities would include the production of oil and produced water which could adversely impact water quality if not properly managed and/or the oil or produced water is discharged to surrounding surface water bodies. The new office buildings, landscaping, and parking areas could adversely affect surface water quality with sediment or other pollutants if surface water runoff is not properly managed. The restored northern portion of the Synergy Oil Field site would change the existing habitat and could adversely impact surface water quality via erosion if not properly maintained.

- **Oil Production at LCWA and Pumpkin Patch Sites.** The operation of oil production and injection wells, pipelines, and associated infrastructure is regulated by DOGGR as per the applicable federal, State, and local regulations. For the operation of wells, storage of oil, and transportation of the oil to refineries through pipelines, regulations include measures to routinely monitor and inspect wells, pumps, pipelines, storage tanks, and associated equipment for leaks and pressure issues. Storage tanks would be required to have secondary containment. The wells would be installed in well cellars designed to contain fluids in the event of a leak. The wells, pipelines, and storage tanks are required to have established emergency procedures in the event of a release or spill. The produced water that would be pumped out along with the oil is typically brackish to saline, but would be entirely injected back into the production zone from whence it came.
- **Restored Habitat at Synergy Oil Field Site.** Reconnection of the slough with the marshplain could cause erosion of the slough channel and adjacent areas, which could deliver sediment-laden runoff and associated constituents to Steamshovel Slough and Los Cerritos Channel. Constituents associated with these sediments could then settle out into the channel and marsh at concentrations that may adversely affect water quality. Given the low concentrations of the reported constituents (based on a sediment sample taken in 2005), the reworking of the soils in the proposed restoration area would not be anticipated to release chemical constituents at concentrations above background levels or that are not already being transported by the Los Cerritos Channel. The landfill along the eastern edge of the site is buried 25 feet deep, so any erosion at the site is not expected to reach levels that would expose this material. The natural function of the salt marsh habitat would improve water quality by capturing sediment and pollutants from upstream and upslope sources. The improved function of the marsh plants and the associated biological activity would serve to capture, filter, and naturally degrade

pollutants and would potentially be a beneficial impact. The implementation of the 5-year mitigation and monitoring program would monitor and, if needed, adjust the restoration and functioning of the salt marsh and would result in a beneficial impact.

- **Tidal Inundation.** By establishing tidal channels and connecting Steamshovel Slough to the marshplain to the south, the extent of tidal inundation would increase. This could possibly result in some localized increase in salinity within the restoration area; however, the change to water quality would not be considered to have an adverse impact on water resources because the groundwater in this area is all brackish to saline and is not used for domestic or municipal supply. The inland migration of saline groundwater, if any, would likely be limited and not extend much beyond the southern limits of the Synergy Oil Field area. While the increased inundation could cause more salt water to infiltrate to the water table, it would be infiltrating into an already brackish to saline estuarine water table that is not used for public or private supply.

All Other Project Components

The operation of the oil production system, office building, and visitors center would also use small quantities of cleaning products and occasional paints, solvents, and thinners for routine maintenance. As discussed in Section 3.7, *Hazards and Hazardous Materials*, the preparation and implementation of the Hazardous Materials Business Plan (HMBP) would require hazardous materials to be stored and labeled in appropriate containers. Compliance with existing regulations would reduce the potential for the release of chemicals that could adversely affect surface water quality.

In addition, and as described above in the Regulatory Framework, the proposed project would be required to implement various treatment, structural, and non-structural source control BMPs to reduce potential impacts to water quality from sediments and other pollutants, as recommended in the LID Plan prepared for the project. The discussion below in Impact HY-2 on impervious surfaces provides detail of the proposed BMPs in the LID plan. The installation of these BMPs would reduce impacts to water quality to a less-than-significant level.

Finally, and as described above in the Regulatory Framework, the proposed project would be required to comply with the requirements of the City of Long Beach MS4 Permit for various specific discharge categories, including landscape irrigation using potable water, landscape using reclaimed or recycled water, and street/sidewalk wash water. The MS4 Permit lists source control BMPs pertaining to pollutant-generating activities to be implemented at commercial and industrial facilities. With implementation of and compliance with the HMBP, LID Plan, and the MS4 Permit, impacts related to water quality during operation would be less than significant.

Finding

With the implementation of and compliance with the requirements noted above, impacts to water quality would be less than significant, and no mitigation measures would be necessary.

Impact HY-2: The project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the groundwater table.

Construction

Construction of the proposed project facilities would involve activities that would require the use of water, including the drilling of new oil production and produced-water injection wells, plugging of existing oil and

injection wells, the hydrostatic pressure testing of pipelines and storage tanks, and other construction activities such as concrete mixing and dust control for buildings, well cellars, and associated infrastructure. The local water supply is served by the Long Beach Water District (LBWD), which receives a mix of groundwater, imported water and recycled water. LBWD acquires its groundwater supply from the landward side of the Alamitos Barrier Project, and groundwater beneath the four individual sites is not used for potable water due to seawater intrusion. The required water would be supplied by tapping into existing LBWD water lines. Table 3.17-4, Summary of Projected Annual Water Usage, in the Draft EIR summarizes the projected water use for construction and operation activities over the next 60 years. Both construction and operations water use are listed because the activities overlap over time. The maximum combined construction and operations water use would be about 124 acre-feet from the third year through eleventh year when oil wells would be constructed at the Pumpkin Patch and LCWA sites. Water use would be less in all other years. The LBWD expects to have at least 76,983 acre-feet/year (afy) of available surplus water, which far exceeds the needs of the proposed project for any year.

Operation

Oil Wells

The extraction of oil also results in the extraction of brackish to saline water from the production zones. The proposed project would reinject the produced water back into the production zone to prevent subsidence and damage to overlying aquifers, returning the produced water to the depth levels from which it was extracted.

The processes of separating the oil from the produced water, as well as other operational activities, would require water supply; however, as previously discussed, the LBWD expects to have at least 76,983 afy of available surplus water, which far exceeds the needs of the proposed project for any of the next 60 years. In addition, groundwater beneath the four individual sites has been intruded by seawater for some years and consequently is not used for potable water.

All Other Non-Oil Wells Structures

Operation of the proposed project would require water supply for various other uses, including irrigation of the restoration areas on the Synergy Oil Field site and operation of the office building and visitors center. Water would be provided by the LBWD, which receives some of its water from groundwater; however, as previously discussed, the LBWD expects to have at least 76,983 afy of available surplus water, which far exceeds the needs of the proposed project for any of the next 60 years. In addition, groundwater beneath the four individual sites has been intruded by seawater for some years and consequently is not used for potable water.

Impervious Surfaces

The Synergy Oil Field site would have no net change in impervious area. The drainage would be conveyed to seven proposed bioretention basins designed for the 85th percentile 24-hour storm volume and located around the visitors center. Therefore, all of the rainfall that currently falls on the site will still continue to infiltrate back into the subsurface after supporting some landscaping. In addition, the Synergy Oil Field site would experience an overall net reduction in impervious surfaces following the eventual removal of its oil production infrastructure that consists of oil and injection wells, wells pads, storage tanks, processing equipment, and access roads. No other impervious structures would be constructed on the Synergy Oil Field site.

The City Property site would experience an overall reduction in impervious surfaces following the plugging and abandonment of wells and eventual removal of its oil production infrastructure. The addition of the oil pipeline and utility lines that would cross the City Property site would not increase impervious surfaces because the lines would be protected by earthen berms with no surrounding pavement. Rain would flow around the lines and infiltrate into the subsurface similar to existing conditions. No other impervious structures would be constructed on the City Property site.

The Pumpkin Patch site would experience an increase of about 196,244 square feet (sf) (4.5 acres) of impervious surfaces the LCWA site would experience an increase of about 121,314 sf (2.8 acres) of impervious surfaces (Wilson Mikami 2017a). Drainage on the Pumpkin Patch and LCWA sites currently flows north to Studebaker Road. Under the proposed project and in accordance with the LID Plan, drainage would be conveyed through proposed swales, gutters, and storm drains to the well cellars designed to contain a 25-year storm event. Larger storm flows would overflow from the well cellars to Studebaker Street, as is the current condition. Water collected in the well cellars would be conveyed to the on-site water treatment system and injected into the subsurface oil production zones, along with the produced water. Therefore, all of the rainfall that currently falls on the Pumpkin Patch site would be injected into the subsurface, recharging the volume of water in the oil production zones.

Finding

Project-related impacts to groundwater would be less than significant, and no mitigation measures would be necessary.

Impact HY-3: The project would not substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion, siltation or flooding off site.

Construction

Construction of the proposed project would involve the demolition of existing structures and the construction of new structures on the project site, construction of earthen berms, establishment of tidal channels, removal of existing berms and roads, and lowering elevations on the Synergy Oil Field site and would thereby alter the existing drainage patterns on site such that erosion, siltation, and flooding could occur.

The proposed project would be required to implement erosion and sediment control BMPs as specified in the SWPPP prepared in accordance with the Construction General Permit. This would prevent erosion and siltation from occurring during construction activities for both oil facilities and habitat restoration. Some of the BMPs implemented to reduce erosion and siltation would impede or slow the speed of stormwater runoff flow, and would reduce the potential for flooding to occur. Further, flooding in the Synergy Oil Field site near the restored areas is anticipated since it is naturally flooded by tidal channels; flooding would not be viewed as a negative impact during construction.

Operation

Operation of the proposed project would involve altered drainage patterns for the Synergy Oil Field, Pumpkin Patch, and LCWA sites; the drainage pattern for the City Property site would remain essentially unchanged. Per the recommendations of the project LID Plan (Wilson Mikami 2017a), water quality BMPs would be

installed on all sites except the City Property site. Through the retention and infiltration of stormwater runoff, stormwater flow rates would be controlled to be equal or less than the pre-developed condition.

While some erosion of Steamshovel Slough is expected initially, the natural function and increased footprint of the marsh habitat would increase the capture of sediment in the long term, which would be a beneficial impact. With implementation of the 5-year mitigation and monitoring program established for the mitigation bank, the restoration and functioning of the salt marsh would be a beneficial impact.

The proposed restoration activities on the northern 76.52-acre Synergy Oil Field site would expand tidal connection, so that areas south of Steamshovel Slough that currently lack tidal connection would receive tidal flows. Although expanded tidal connections would increase flooding in these areas, increased flooding is the goal of the proposed restoration to recreate natural flooding conditions, and flooding would not be viewed as a negative impact.

As described in Draft EIR Section 3.8.4.2, Methodology, hydraulic modeling evaluated any changes to flood water elevations that would result due to the proposed project (Moffatt & Nichol 2017). Modeling was conducted for both existing and project conditions. The existing conditions model results indicate that both storm and tidal waters coming from Steamshovel Slough would be contained within the Synergy site without overtopping surrounding streets. Model results showed that for the proposed project condition, water levels would be the same as under existing conditions and both storm and tide water would be contained within the Phase 1 property boundary, due to flood protection provided by the proposed berm along the Phase 1 boundary. The proposed berm would have an elevation of 9.0 feet NGVD29², providing approximately 3.4 feet of freeboard above the 100-year coastal flood event (1 percent annual change of occurrence) water level. This would add 2 to 3.6 feet of freeboard when compared to existing conditions. Since freeboard would increase with the project, this would be a beneficial impact.

Sea level rise is projected to occur worldwide in the mid- to long-term future (Moffatt & Nichol 2017). Based on the measured highest anticipated tidal elevation, the 100-year flood elevation, and 2.6 feet of sea level rise in year 2060 (consistent with the 2015 California Coastal Commission guidance), the projected flood elevation would be modeled at 8.18 feet NAVD29, hence the conclusion to design the interim berm separating the two project phases at 9.0 feet NGVD29. Without the proposed project and the interim berm, an 8.18-foot water level would overtop both the Pacific Coast Highway and 2nd Street. Therefore, the proposed project with the proposed interim berm would improve the flood protection in the area and provide a beneficial impact.

Finding

Project-related impacts on erosion, siltation, and flooding would be less than significant, and no mitigation measures would be necessary.

² National Geodetic Vertical Datum of 1929 (NGVD29) is one of several datums used for measuring elevation relative to sea level.

Impact HY-4: The project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Construction

Runoff water would be controlled in compliance with the Construction General Permit and the BMPs identified in the required SWPPP. Therefore, construction is not expected to generate an amount of runoff that would exceed storm water drainage system capacity.

Operation

Once operational, runoff flow rates would be equal or less than the pre-developed flow rate condition. All new storm drain facilities on site would provide capacity for a 25-year storm event. Therefore, the proposed project would not generate substantial stormwater runoff such that existing or planned drainage system capacities are exceeded.

Finding

Project-related impacts to the capacity of existing or planned stormwater drainage systems would be less than significant, and no mitigation measures would be necessary.

Impact HY-5: The project would not place buildings, oil production infrastructure, workers, or the public within areas anticipated to be inundated due to sea level rise.

Construction

During construction, there would be no impacts due to sea level rise because of the short-term nature of the construction work. Sea level rise is not anticipated occur over the 4-year construction period (when a majority of the construction work is being implemented). This impact would be less than significant.

Operation

The proposed restoration activities on the northern portion of the Synergy Oil Field site would expand tidal connection so that areas south of Steamshovel Slough that currently lack tidal connection would receive tidal flows. Increasing the tidal connections would increase flooding in these areas, and could increase the risk of flooding with sea level rise.

Hydraulic modeling evaluated flood levels in the marsh with sea level rise. Modeling was conducted for both existing and proposed project conditions. Model results showed that water levels would be the same (6.9 feet NGVD29) for the proposed project condition and existing conditions with 2.6 feet of sea level rise (Moffat & Nichol 2016). The existing conditions modeling showed that the west bound lanes of 2nd Street just east of the PCH may be inundated if sea level rise is more than 2.6 feet; however, the proposed project would increase flood protection from existing conditions through construction of the proposed berm. The berm was designed to consider sea level rise, so during the 100-year coastal flooding event with 2.6 feet of sea level rise, the berm would still maintain 0.82 feet of freeboard. Since freeboard would increase with the project, this would be a beneficial impact.

Finding

Project-related impacts from potential inundation due to sea level rise would be less than significant, and no mitigation measures would be necessary.

Impact HY-6: The project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Construction

The project proposes to reconnect Steamshovel Slough to the surrounding marshplain by removing the existing berms, which could result in increased flooding within that local area; however, the proposed project would construct permanent sheet pile walls and an earthen berm along the perimeter of the southern edge of the restoration area to prevent tidal water spillover into the southern portion of the site that currently contains active oil operations. Additionally, the four individual sites are not in a dam inundation area. Therefore, people and structures would not be exposed to substantial flooding during project construction.

Operation

The proposed project would increase public access to the Synergy Oil Field site and construct buildings, oil production operations, and associated infrastructure on the Pumpkin Patch and LCWA sites, which could increase the exposure of people and structures to flooding during operation in the event of a levee or dam failure.

Reconnection of Steamshovel Slough to the surrounding marshplain on the Synergy Oil Field site would increase flooding potential on site and could increase flood risk to the surrounding areas; however, the goal of the berm removal is to allow for expansion of tidal influence in the northern 77.3-acre area to convert non-tidal areas to tidal wetlands; therefore, flooding of the tidal wetlands is expected and necessary, and would provide additional areas to contain flood waters. Further, the proposed sheet pile wall and earthen berm along the southern perimeter of the Steamshovel Slough would reduce the flood risk to the southern portion of the site, which would contain the visitors center. The proposed berm would actually increase the level of flood protection from existing conditions, resulting in a beneficial impact.

The new buildings, oil production operations, and associated infrastructure on the Pumpkin Patch and LCWA sites would result in the increased presence of people on those two sites. The LCWA site is not adjacent or near a levee and would have a low potential for flooding due to a distant levee failure. The Pumpkin Patch site is immediately adjacent to the San Gabriel River and would be dependent on the levees along the San Gabriel River for flood protection. Since the project does not propose to change these levees, the proposed project would not change the flood risk to the area. Additionally, roughly half the Pumpkin Patch site is at elevations equal to or greater than the levee elevation. The remaining areas of the site are above 13.5 feet NGVD, which is 5.3 feet higher than the 100-year coastal flood event with 2.6 feet of sea level rise, so flooding at this elevation would be extremely rare. Therefore, people and structures would not be exposed to substantial flooding during project operation.

Finding

Project-related impacts from the potential to expose people or structures to seiches, tsunamis, or mudflow would be less than significant, and no mitigation measures would be necessary.

Impact HY-7: The project would not expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

Construction

The proposed project is not located in an area that could be exposed to mudflows because the four individual sites are all relatively flat. By connecting Steamshovel Slough to the marshplain to the south, the proposed project would be creating a large basin that could potentially experience a seiche and overtop the berm to cause flooding; however, for a seiche to occur, the site would have to be filled with water, which would only occur during a large, infrequent storm event (e.g., 100-year event). It would be extremely unlikely that a large storm event would occur at the same time as a large earthquake induces a seiche. Additionally, the proposed project includes a berm that has 3.4 feet of freeboard during the 100-year event, so it is unlikely that a seiche would be large enough to overtop the berm and cause flooding.

The entire project area is located within a tsunami inundation area; therefore, existing and partially constructed structures and construction workers could be exposed to tsunamis during project construction; however, the County of Los Angeles is in the process of becoming “tsunami ready,” meaning it would implement mitigative, preparatory, and response measures to avoid or lessen substantial impacts to structures and persons associated with tsunami events, including 24-hour notice and evacuation route signs. Further, PCH is located adjacent to the project site and is considered a disaster route used to bring in emergency personnel and supplies to aid in the event of a disaster, which includes tsunamis. Construction activities would not alter the topography of the site so substantially that tsunami risks would be increased when compared to existing conditions.

Operation

As stated previously, the entire project site is located in a tsunami inundation zone. Over a 40-year period, the oil production operations on the Synergy Oil Field and City Property sites would be removed and replaced with oil production operations on the Pumpkin Patch and LCWA sites, with about the same number of workers. Therefore, the project would not increase the number of workers being exposed to risk of a tsunami.

As previously discussed, the County of Los Angeles is working on becoming a TsunamiReady community that would implement measures to avoid or lessen potential tsunami impacts to structures and persons. The Pacific Coast Highway could be used to bring in emergency personnel and supplies to the project site in the event of a tsunami. Further, the project would restore the northern portion of the Synergy Oil Field site to wetland habitat. Wetlands provide protection from tsunamis and tidal surges and would thus help mitigate potential damage from a tsunami on the Synergy Site and adjacent areas.

Finding

Project-related impacts would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative impacts during project construction and project operation were analyzed. The regulations required by DOGGR on all projects would require measures for the safe transportation, storage, handling, and disposal of hazardous materials used for the drilling and construction of wells, including appropriate containers, and secondary containment to contain a potential release. In addition, conductor casing would be used to seal off non-oil-producing layers, preventing drilling mud or oil from entering aquifers, and construction activities that could damage active, idle, and plugged wells are prohibited. Because the well installation activities would be subject to the requirements noted above, impacts associated with pollutants entering surface water bodies or aquifers would be less than significant. These regulations would be required of any and all cumulative projects that drill oil wells. Therefore, with compliance with applicable regulations, the cumulative impacts would not be cumulatively considerable (less than significant).

The state Construction General Permit and the Long Beach Storm Water Management Program would require each cumulative project to prepare and implement a SWPPP. The SWPPPs would describe BMPs to control runoff and prevent erosion for each project. The Construction General Permit has been developed to address cumulative conditions arising from construction throughout the state, and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. Construction sites regardless of location would each be required to implement BMPs to reduce and control the release of sediment and/or other pollutants in any runoff leaving their respective sites, including from erosion. The runoff water from both sites would be required to achieve the same action levels, measured as a maximum amount of sediment or pollutant allowed per unit volume of runoff water. Thus, even if the runoff waters were to combine after leaving the sites, the sediments and/or pollutants in the combined runoff would still be at concentrations below action levels and would not be cumulatively considerable. Similarly, the impacts of the proposed project combined with other cumulative projects within the region would not cause a significant cumulative impact related to soil erosion and the proposed action's contribution to cumulative impacts on soil erosion would not be cumulatively considerable (less than significant).

The local water supply is served by the LBWD, which receives a mix of groundwater, imported water and recycled water. The LBWD expects to have at least 76,983 AFY of available surplus water. LBWD's analysis considers the anticipated growth (effectively the summation of anticipated cumulative projects) within its area of service. Therefore, with compliance with applicable regulations, the cumulative impacts would not be cumulatively considerable (less than significant).

Until the construction of structures has been completed, there would be no impacts from changed drainage patterns, the placement of structures in areas susceptible to sea level rise, levee or dam failure, seiches, tsunamis, or mudflows.

During project operations, oil production at the four individual sites and other oil production sites (e.g., the Thermo oil field located adjacent to the northwest of the Synergy Oil Field site) would all be required to comply with the same DOGGR regulations that include regulations to routinely monitor and inspect wells, pumps, pipelines, storage tanks, and associated equipment for leaks and pressure issues. Storage tanks would be required to have secondary containment. In the case of the proposed project, wells would be installed in well cellars designed to contain fluids in the event of a leak. The wells, pipelines, and storage tanks are required to have established emergency procedures in the event of a release or spill. The produced water that would be pumped out along with the oil is typically brackish to saline, but would be entirely injected back into

the production zone from where it came. Additionally, the proposed project and all cumulative projects would be required to prepare and implement HMBPs to manage any hazardous materials used by operations, including appropriate storage, labeling, and use. In addition, all facilities in the City of Long Beach would be required to comply with the Long Beach MS4 program and LID requirements that would require managing surface water on their respective facilities. Therefore, with compliance with existing regulations, impacts related to water quality from the operation of oil well fields and facility operations of the proposed project and cumulative projects would not be cumulatively considerable (less than significant).

The local water supply is served by the LBWD, which receives a mix of groundwater, imported water, and recycled water. It is assumed that the water supply for cumulative projects would also be the LBWD. The LBWD expects to have at least 76,983 AFY of available surplus water. LBWD's analysis considers the anticipated growth (effectively the summation of anticipated cumulative projects) within its area of service. All facilities in the City of Long Beach would be required to comply with the Long Beach MS4 program and LID requirements that would require managing surface water on their respective facilities. This would include minimizing the impacts of adding impervious surface. Therefore, with compliance with existing regulations, the cumulative impacts relative to groundwater supplies would not be cumulatively considerable (less than significant).

All projects within the local area are required to comply with the city's LID and MS4 regulations that would require controlling surface water runoff and reducing impacts from sediment and other pollutants. These regulations would also apply to any cumulative projects that change drainage patterns. Therefore, with compliance with existing regulations, impacts related to water quality from facility operations of the proposed project and cumulative projects would not be cumulatively considerable (less than significant).

The proposed project would be designed to account for sea level rise. Consequently, the proposed project would not cumulatively contribute to sea level rise issues with nearby cumulative projects and would not be cumulatively considerable (less than significant).

The reworking of the Synergy Site to a more natural wetland function and the improvement of berms would result in a beneficial impact. Therefore, the proposed project would not contribute to cumulative impacts (less than significant).

The proposed project area is not within an area subject to seiches or mudflows, which would also be the case for nearby cumulative projects. The project area, which would include nearby cumulative projects, is located within a tsunami inundation area and could be exposed to tsunamis; however, the County of Los Angeles is in the process of becoming TsunamiReady, meaning it would implement mitigative, preparatory, and response measures to avoid or lessen substantial impacts to structures and persons associated with tsunami events, including 24-hour notice and evacuation route signs. This program would apply to all cumulative projects within the tsunami zone. Therefore, with compliance with tsunami program, impacts related to tsunamis would not be cumulatively considerable (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.7 Land Use and Planning

Impact LU-1: The project would not physically divide an established community.

The existing character of the project vicinity is a mixture of open space/wetland areas which includes industrial facilities, (energy facilities and oil extraction facilities), and commercial retail uses along PCH and portions of 2nd Street. The proposed structures, facilities, and surrounding walls on the Pumpkin Patch and LCWA sites would be of a similar scale to that which is present on adjacent properties and, thus, would not create an obstruction that would physically divide a community. In addition, abandonment of oil production facilities on the Synergy Oil Field, City Property, and Pumpkin Patch sites over a period of 40 years would create open space and wetlands areas that would create a more natural landscape for the area on those sites, consistent with their original habitat. By removing the existing facilities and consolidating them on two much smaller sites, both the Synergy Oil Field and City Property sites would be more compatible with and similar to the overall Los Cerritos Wetlands complex.

Furthermore, street, sidewalk, and landscaping improvements on and fronting the project site would make it easier and safer for the community to access the surrounding areas. Thus, it is not anticipated that the proposed project would physically divide, disrupt, or isolate an established community.

Finding

No impacts related to division of established communities would occur, and no mitigation measures would be necessary.

Impact LU-2: The project would not conflict with most applicable land use plan, policy, or regulation of an agency with jurisdiction over the project, adopted for the purpose of avoiding or mitigating an environmental effect.

Below is an evaluation of the project's consistency with applicable plans and policies that have been adopted for the purpose of avoiding or mitigating an environmental effect. See Draft EIR Table 3.9-1, Consistency Analysis with Local Land Use Plans, for a discussion of consistency with specific applicable goals and policies that apply to the proposed project.

Consistency with the Long Beach General Plan

Synergy Oil Field and City Property Sites

The Synergy Oil Field and City Property sites are within the SEADIP; however, they are not assigned a specific land use designation under the City's General Plan. Given that there is no existing land use designation for these sites, a general discussion of consistency with the General Plan and its elements is included in Draft Table 3.9-1. Implementation of the proposed project on the Synergy Oil Field and City Property sites would not conflict with the City's General Plan.

Pumpkin Patch and LCWA Sites

The Pumpkin Patch and LCWA sites are designated as LUD No. 7, Mixed Uses under the General Plan, which allows retail, offices, medical facilities, higher density residences, visitor-serving facilities, personal and professional services, and recreational facilities (City of Long Beach 1989, 65). Under the proposed project, the Pumpkin Patch site would be developed with industrial and office uses and the LCWA site would be

developed with industrial uses. While the LUD No. 7 designation does not promote industrial uses, it also does not preclude the assignment of this district designation to areas for industrial, manufacturing, and/or warehousing uses if the site has a previous history of this use or is in an area where this use exists. The General Plan discusses the existing active oil operations on the Synergy Oil Field and City property sites (City of Long Beach 1989, 169). In these situations, the General Plan encourages appropriate accompanying land uses, including office use (City of Long Beach 1989, 66). While the 1989 General Plan Land Use Element is not entirely clear on this point, it has in practice been interpreted to allow industrial uses as part of a mix but discourage heavy industry such as standalone metal smelter. Given that the Pumpkin Patch site has been used for oil production and the LCWA site has been used for storage of industrial manufacturing items, development of industrial uses on both sites, and accompanying office uses on the Pumpkin Patch site would be consistent with LUD No. 7 in light of the prior industrial history on both sites and the adjacent industrial activities on the City Property, the Plain All American, and AES Power Plant sites. Therefore, industrial development on the Pumpkin Patch and LCWA sites would not conflict with the Long Beach General Plan.

Both sites are also within the SEADIP and are addressed in the Neighborhood Plan section of the Land Use Element of the General Plan. The sites are also near areas of active oil operations described in the General Plan.

Consistency with the Long Beach Zoning Code

Synergy Oil Field Site

The project has a zoning designation of PD-1 (SEADIP). The site is within Subarea 11a, which allows for residential uses and Subarea 33, which designates the site for wetlands purposes, with 2 acres devoted as a least tern nesting site. The project proposes an amendment to the SEADIP that would establish both short-term industrial (oil production) uses and long-term open space, recreation (i.e., the visitors center and recreational trail) and wetlands restoration uses for the two subareas that encompass the Synergy Oil Field site.

The proposed project would restore the northern 76.52-acre restoration area portion of the Synergy Oil Field site (Subareas 11a and 33) and would abandon and remediate existing oil production facilities over time within the southern portion. All of the restoration work within the northern portion of the site would take place within Subarea 33, which designates this area for wetlands purposes. The central portion of the site is entirely within Subarea 33 and the southern portion is split between Subarea 33 and Subarea 11a. As described in the SEADIP, there is only an indefinite boundary between Subarea 33 and Subarea 11a and development in Subarea 11a is contingent upon wetlands preservation in Subarea 33. Furthermore, oil extraction operations on the site predate the adoption of the SEADIP's PD-1 designation. As such, the current operation of oil extraction facilities is allowed under this zoning. The proposed project would implement a phasing out of oil operations on the southern portion of the Synergy Oil Field site, which could take up to 40 years to complete. As wells are plugged and abandoned, they would be remediated and revegetated in the immediate area around each well. Eventually, the southern portion of the site could be restored as a wetland area; however, as described above, that would not occur as a part of the proposed project. The planned restoration in the northern portion of the site and around the well plugging and abandonment that would occur under the proposed project would be consistent with the zoning on the Synergy Oil Field site and, thus, would not conflict with PD-1. Currently, uses on the Synergy Oil Field site are not consistent with the uses identified in the SEADIP Subarea 11a, which identifies this portion of the project site for residential uses.

Under the proposed SEASP, the Synergy Oil Field site would be given a land use designation of CHWR. The CHWR land use designation provides for coastal restoration, access, visitor-serving recreation (boating, public launching, kayaking, paddle boarding, etc.), and biological reserves. Under the proposed SEASP, public access to coastal water is encouraged and uses such as interpretive centers and public parking associated with coastal resources are permitted. All uses proposed on the Synergy Oil Field site would be consistent with the land use designations in the proposed SEASP.

City Property Site

The City Property site is in Subarea 25 of SEADIP, which allows business park (office commercial and light industrial), restaurant, and hotel uses. As the oil extraction operations on the site predate the adoption of the SEADIP's PD-1 designation, the current operation of oil extraction facilities is allowed to continue under this zoning. The project proposes an amendment to the SEADIP that would establish both short-term industrial (oil production) uses and long-term open space and wetlands restoration uses for this area of Subarea 25 that would allow for the continued oil operations, the construction of a new oil pipeline between the Pumpkin Patch site (also within Subarea 25), and the eventual use of the non-oil production areas of the City Property site for open space. With these amendments, the proposed project would not conflict with the existing PD-1 designation on the City Property site under SEADIP.

Under the proposed SEASP, the land use designation on the City Property site would be CHWR, and the zoning, would therefore be CHWR, which would provide for the continuation of an existing use. As described above, under the proposed project, oil production and extraction would be phased out on the site over a period of 40 years. As wells are plugged and abandoned the immediate areas around each well would be revegetated. A pipeline would be constructed through the central portion of the site along an existing dirt road would be considered a continuation of the existing oil production facilities and, thus, would be consistent with the uses proposed under the SEASP.

Pumpkin Patch Site

The Pumpkin Patch site is also in Subarea 25 of SEADIP which allows light industrial uses. Therefore, the proposed project would not conflict with the existing PD-1 designation. The project proposes an amendment to the SEADIP that would permit oil production uses for this area of Subarea 25. Because oil and gas activities are governed by Title 12 of the City's Municipal Code, in addition to the zoning standards, the project also proposes an amendment to the City's Oil Map that would allow oil operations on the Pumpkin Patch site. With these amendments, the project would not conflict with the existing PD-1 designation on the City Property site under SEADIP and the uses would be consistent with those allowed under the SEADIP and the City's Oil Code.

Under the proposed SEASP, the land use designation on the Pumpkin Patch site would be industrial, and the zoning would, therefore, also be industrial. The SEASP would also allow for the retention of the office and industrial uses currently allowed under the SEADIP. Given the industrial uses proposed as part of the project, those uses would be consistent with the zoning in the proposed SEASP.

LCWA Site

The LCWA site is within Subarea 19, which allows industrial uses. Proposed uses on the LCWA site would be consistent with the existing zoning. The project proposes an amendment to SEADIP to clarify the applicability of height limits to oil storage facilities. There would be no conflict with the existing PD-1 designation.

Because oil and gas activities are governed by Title 12 of the City's Municipal Code, in addition to the zoning, the project also proposes an amendment to the City's Oil Map that would allow oil operations on the LCWA site.

Under the proposed SEASP, the land use designation for the LCWA site would be industrial and the zoning would also be industrial. Given the industrial uses proposed as part of the project, those uses would be consistent with the zoning in the proposed SEASP.

Consistency with Municipal Code 12.08 the Oil Map

As described above, City of Long Beach Municipal Code Chapter 12.08 defines the areas within the City where oil operations are permissible. To be consistent with the oil map, the proposed project would amend the oil map to include the Pumpkin Patch and LCWA sites on the oil map.

Consistency with the California Coastal Act and Long Beach Local Coastal Program

Synergy Oil Field Site

The Synergy Oil Field site (Subareas 11a and 33) has been removed from the LCP. Because it is not covered by the City's LCP, any development on the Synergy Oil Field site is reviewed for consistency with the Chapter 3 policies of the CCA, PRC Sections 30210–30265.5. The proposed project would be consistent with the overall goals and policies of the CCA to provide public access and recreational opportunities within the coastal zone.

The proposed SEASP would replace the existing PD-1 zoning in its entirety. In order to do this, an amendment to the City's LCP would need to be processed through the CCC. Overall, the proposed SEASP would support the goals of the LCP by directing development away from the wetlands, parks, and open space areas in the coastal zone and towards the urban core where development is currently present. The proposed SEASP also encourages public access to the coastal zone by creating view corridors, pedestrian walkways to the wetlands and the marina, and bicycle access opportunities. As a part of the proposed project, sidewalk improvements would be made to PCH, adjacent to the Pumpkin Patch site and bikeway improvements would be on the streets that front all four individual sites that comprise the project site.

City Property Site

The City Property site is not within the City's certified LCP; therefore, any new development would be required to be consistent with CCA policies. Implementation of the proposed project would be consistent with CCA policies that provide for continued energy production, and encourage the restoration of wetlands and habitat areas. Specifically, the proposed project would remove and remediate existing oil production facilities in order to consolidate operations to the maximum extent feasible, as required by CCA Policy 30262.

Pumpkin Patch and LCWA Sites

The Pumpkin Patch site (Subarea 25) and LCWA site (Subarea 19) are located within the LCP jurisdiction. The LCP provides policies regarding public access, recreation, marine environment, land resources, development, and industrial development. When the LCP was adopted, the PD-1 zoning regulations from the SEADIP were adopted by reference in the LCP and function as the current zoning for the project site. As described above, the proposed project is consistent with the existing zoning on the Pumpkin Patch and LCWA sites, and therefore, would be consistent with the LCP. The proposed project includes an amendment to the

SEADIP and the City's Oil Map that would allow for new oil production activities on the Pumpkin Patch and LCWA sites. The amendments would require an amendment to the City's LCP, and with implementation of the proposed amendments, there would be no significant impacts with respect to land use consistency.

Development on the Pumpkin Patch and LCWA sites would be consistent with the LCP because it would direct development away from the Synergy Oil Field and City Property sites and would consolidate oil production facilities and operations to a site that currently has adjacent industrial development. In addition, the sites would improve bicycle access by improving the existing bike lane on adjacent roadways.

Consistency with the Long Beach Bicycle Master Plan

As a part of the proposed project, improvements would be made to upgrade the existing bicycle lanes adjacent to all four of the individual sites that comprise the project site; thus, the proposed project would be consistent with the Bicycle Master Plan goal of identifying, developing, and maintaining a complete and convenient bicycle network and would be consistent with the overall Citywide Bicycle Master Plan.

Consistency with the AELUP

The proposed project is located within the Airport Environs Land Use Plan (AELUP) area for the Joint Forces Base Los Alamitos, which is a federally owned and operated airport facility located approximately 2.7 miles northwest of the Synergy Oil Field site (OCALUC 2002). According to the AELUP, notice to the FAA is required for any proposed structure more than 200 feet above ground level of its site within any jurisdiction. The project site is also located approximately in the 300-foot height restriction contour (OCALUC 2008). Given that development under the proposed project would be constructed to a maximum height of 35 feet on the Pumpkin Patch site, it would not adversely affect navigable airspace or require review by the FAA or OCALUC. The drilling rig on the Pumpkin Patch and LCWA sites would be 160 feet tall and would not adversely affect navigable airspace or require review by the FAA or ALUC. Therefore, the proposed project would be consistent with the AELUP.

Consistency with SCAG Policies

Southern California Association of Government's (SCAG's) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) establishes goals, objectives and policies with regard to High Quality Transit Areas, Livable Corridors, and Neighborhood Mobility Areas. The proposed project would be consistent with SCAG's goals to maximize mobility and accessibility, to protect the environment and health of residents by improving air quality and encouraging active transportation, and by actively encouraging energy efficiency. Therefore, the proposed project would be consistent with the SCAG 2016–2040 RTP/SCS.

Finding

Implementation of the proposed Project would not result in significant land use impacts with respect to consistency with applicable plans and policies that have been adopted for the purpose of avoiding or mitigating an environmental effect, and no mitigation measures would be necessary.

Cumulative Impacts

The adopted growth projections used for the cumulative analysis in the EIR are derived from the SCAG Integrated Growth Forecast of the 2016–2040 RTP/SCS, for the City. The proposed project would be consistent with the applicable state, regional, and local plans and policies, including the General Plan and,

thus, is consistent with the SCAG Integrated Growth Forecast of the 2016–2040 RTP/SCS. Therefore, cumulative impacts with regard to land use would be less than significant.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.8 Mineral Resources

Impact MR-1: The project would not result in the loss of availability of a known or locally important mineral resource that would be of value to the region and the residents of the state or is delineated on a local General Plan, Specific Plan, or other land use plan.

All oil wells on the Synergy Oil Field and City Property sites would be plugged and abandoned over time and the oil production currently generated by these wells would be replaced over time with oil wells drilled on the Pumpkin Patch and LCWA sites. Oil production facilities would continue to operate on the Synergy Oil Field and City Property sites until one of the following “trigger” events occur:

- Upon completion and occupancy of the oil production facilities on the Pumpkin Patch and LCWA sites, specifically occupancy of the new office facility on the Pumpkin Patch site (referred to as the New Occupancy Date), if an oil well on the Synergy Oil Field site produces less than one full barrel of oil per day for a period of 18 consecutive months or longer, the well would immediately be abandoned as required by the abandonment guidelines established by DOGGR.
- Within 20 years from the New Occupancy Date, 50 percent of the existing wells on the Synergy Oil Field and City Property sites would be removed and plugged and abandoned per DOGGR regulations.

The balance of the existing 53 wells, if not previously plugged and abandoned, would be removed and abandoned on or before the 40-year anniversary of the New Occupancy Date.

Once construction of oil production facilities on the Pumpkin Patch and LCWA sites is complete, oil resources would be extracted from these properties. Thus, oil resources would continue to be available and there would be no loss of oil and natural gas production availability. In addition, the older wells and equipment would be replaced with more efficient modern equipment. For example, the use of directional drilling would result in targeted extraction that would increase the production efficiency.

Finding

No impacts to mineral resources would occur, and no mitigation measures would be necessary.

Cumulative Impacts

The proposed project would allow for the continued availability of oil resources and, thus, the project would have no impact on continued availability of this mineral resource. When considered with other cumulative projects, the proposed project does not contribute any impacts to the potential loss of mineral resources and, therefore, has no significant cumulative impact relative to mineral resources.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.9 Noise

Impact NOI-2 The project would not result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels.

Construction

According to the 2004 Caltrans *Transportation- and Construction-Induced Vibration Guidance Manual* (Greve & Associates 2017), the most critical construction vibration concern is whether impact pile driving is used, as vibration levels can be higher than typical heavy construction equipment. The project would likely use vibratory pile driving for sheet piles, and no vibration impacts would occur with vibratory sheet pile driving. However, impact pile driving may also be considered for this project and the potential for impacts are discussed below.

In describing vibration in the ground and in structures, the motion of a particle (i.e., a point in or on the ground or structure) is used. Accordingly, vibratory motion is commonly described by identifying the PPV in inches per second (in/sec), which is generally accepted as the most appropriate descriptor for evaluating the potential for building damage.

The equipment to be used has not been determined; however, if impact pile driving was selected, as a worst case, a Delmag diesel hammer Model D30-32 was used for this analysis. The number of piles, length of construction, and size of piles is not yet known, and would be engineered as part of the design. The hours of the pile driving would be limited by the allowable construction hours of the City of Long Beach Noise Ordinance (Section 8.80.202). Caltrans equations were used to project the vibration level at the nearest receptor of 0.01 in/sec PPV, which is well below the 0.5 in/sec threshold of structural damage established in the Caltrans manual for the new residential structures and modern commercial buildings surrounding the project site; therefore, no structural damage would occur.

The potential for humans to feel the vibrations from project construction vibration, considered more of an annoyance issue rather than an impact, was also considered. At the mobile home park, which is at a distance of approximately 621 feet, the vibration levels of 0.01 in/sec PPV would be considered “barely perceptible.” Since the pile driving activities are short term in nature, annoyance is usually not used as the determinant for impacts. In addition, as no pile driving or grading would take place during the nesting season for sensitive bird species, pile driving vibration would not have an impact on any sensitive species on site.

Operation

The proposed project would develop oil wells, which when in operation, would generate vibration; however, the oil wells would be centrally located within the project site boundary, and not in proximity to humans or structures where they would exceed vibration thresholds for annoyance or structural damage.

Finding

Project-related impacts from groundborne vibration and noise would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative impacts during project construction and project operation were analyzed. Project construction noise was determined to not expose persons to, or generate, noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies. Project construction would occur in proximity to noise-sensitive receptors (i.e., residences), resulting in a substantial temporary increase in ambient noise levels at the receptors during construction; however, implementation of construction mitigation measures would reduce the construction noise impacts to a level of less than significant. Therefore, project construction noise would not be of the magnitude to potentially combine with other cumulative projects where noise could combine together to cumulatively substantially temporarily increase the ambient noise environment in the project area. Therefore, project construction would not be a cumulatively considerable noise impact (less than significant). Regarding vibration, project construction would occur in proximity to structures and inhabited buildings; however, construction vibration levels would be less than the vibration thresholds at the buildings. Therefore, project construction would not be a cumulatively considerable noise or vibration impact (less than significant).

Project operation would generate off-site vehicle traffic noise on area roadways and on-site noise from operating oil wells. The project does not have the potential to generate a substantial number of construction or operational vehicle trips. Therefore, project traffic noise increase on roadways surrounding the project site would be imperceptible and future traffic-related noise levels would not be cumulatively significant (less than significant). The Pumpkin Patch and LCWA sites would be developed with oil production facilities, which would generate noise from operational oil wells. The noise levels projected for oil production would be less than the ambient noise levels and would not exceed the Noise Ordinance criteria. Therefore, the noise impact from oil production operations at the Pumpkin Patch and LCWA sites would result in a less-than-significant impact, based on proper facility design. A mitigation measure has been prescribed to ensure that the facility is properly designed and future operational noise levels in these specific locations would not be cumulatively significant (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.10 Population and Employment

Impact PE-1: The project would not induce substantial indirect population growth.

Construction

There would be an increase in construction jobs at the project site as a result of implementation of the proposed project, estimated to necessitate 110 to 160 workers for construction activities, 40-60 personnel for the drilling process, and substantially less personnel for workover operations. A majority of the proposed project would be implemented in 4 years, while the remaining components (well plugging and abandonment,

well drilling, and operations) would occur over a 40-year period. Construction would last approximately 8 years on the Pumpkin Patch and approximately 11 to 12 years on the LCWA site.

There are over 250,000 construction workers in Los Angeles County (U.S. Census Bureau 2013). Recent overall unemployment estimates from April 2017 from the EDD show unemployment rates of approximately 4.1 percent for Los Angeles County. With an unemployment rate of approximately 4.1 percent countywide, it is likely that several thousand construction industry workers would be available, and it is expected that construction jobs would be filled from the local and/or regional (County) labor force. Given the availability of a construction workforce in Los Angeles County, which includes the project site, and also that the assignment would be temporary, it is assumed that construction workers would commute daily to the site. Therefore, construction-related activities would not result in an increase in the local population or require existing or projected local housing resources. Construction activities associated with the proposed project would not induce substantial indirect population growth.

Operation

The proposed project would create up to 30 new permanent employment positions for the oil operations, in addition to the 15 existing employees. The operation of the visitors center and operation and maintenance of the public access trails on the Synergy Oil Field site would also generate 5 additional employees, including 3 full-time employees and 2 volunteers.

The proposed project would provide employment opportunities for the local economy, and it is anticipated that the majority of the new jobs would be filled by the local labor force. According to the 2016–2040 RTP/SCS Growth Forecast, it anticipated that the city would have 181,700 available jobs by 2040, an increase of 22,772 jobs from the 158,928 jobs available in 2015 (SCAG 2016; Bureau of Labor Statistics 2017).

As described above, the employment opportunities projected for the proposed project are within the growth projections anticipated for the city for the year 2040 (SCAG RTP/SCS). Because the proposed project construction employment and operational employment would be within the anticipated growth projections, the project could be considered growth accommodating and not growth inducing. Furthermore, future employment would also include existing employees that would be relocated to the new operations site, and a majority of employment opportunities that would be generated by the proposed project are anticipated to be filled by the local employment pool and would, therefore, not induce substantial population growth in an area, either directly or indirectly. Operation of the proposed project, including ongoing operation of the oil production facilities and the new visitors center and public access trail, would not induce substantial population growth.

Finding

Population and employment impacts of the proposed project would be less than significant, and no mitigation measures would be required.

Cumulative Impacts

Development of cumulative projects could result in increases in population and employment; however, according to the 2016–2040 RTP/SCS, the population in Long Beach is projected to be approximately 484,500 persons by the year 2040. This represents a decrease of approximately 458 persons from the 484,958 persons in 2016. The number of jobs in the City is expected to increase to approximately 181,700 jobs by the year 2040 from the 158,928 jobs available in 2015 (SCAG 2016). Thus, the employment opportunities projected for

the proposed project are within the growth projections anticipated for the City for the year 2040 (SCAG RTP/SCS). The proposed project would not include any permanent housing on site and, thus, would not contribute to an increase in residents to the City. Therefore, the project would not make a cumulatively considerable contribution to any potential cumulative impact related to substantial increases in population, and the project's cumulative impact would be less than significant.

Development of cumulative projects in in the project area would be expected to result in indirect population growth through provision of increased employment opportunities. Employment growth would be considered substantial if it resulted in housing demand that would exceed planned regional housing development. The proposed project would provide up to 160 temporary construction jobs. It is expected that construction jobs would be filled from the local and/or regional (County) labor force. As workers would be drawn from areas within Los Angeles and Orange Counties to the project site, and their assignment would be temporary, it is assumed that they would commute daily to the site; thus, increased employment as a result of the project would not result in a significant cumulative impact regarding inducing substantial population growth to the project vicinity.

During operation, the proposed project would create up to 30 new permanent employment positions for the oil operations, in addition to the 15 existing employees. The operation of the visitors center and operation and maintenance of the public access trails on the Synergy Oil Field site would also generate 5 additional employees, including 3 full-time employees and 2 volunteers. The proposed project would provide employment opportunities for the local economy, and it is anticipated that the majority of the jobs would be filled by the local labor force. Therefore, the proposed project would not have a significant cumulative impact with regard to inducing substantial population growth to the project vicinity during project operations.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.11 Public Services

Impact PS-2: The project would not result in the need for new or physically altered facilities in order to maintain acceptable response times for police protection services.

Construction

During the construction activities, the need for police services would increase due to the potential for additional crime and accidents associated with construction sites which may include: theft of building materials and construction equipment, malicious mischief, graffiti, and vandalism.

To deter crime, the proposed project would include security measures such as fencing along site perimeter of the construction sites, lighting during non-construction hours, and security personnel located on site at night during the construction phase. Given that construction activities are temporary and the security measures that would be in place during construction, the proposed project would not substantially increase the demand for Long Beach Police Department's (LBPD's) services. Nor would implementation of the proposed project significantly increase LBPD's response times to either to the project site or the surrounding vicinity.

Therefore, it is not anticipated that the proposed project would substantially increase the service demand for police services in the area.

Operation

During the project operation, the need for police services potentially increase due to the potential for additional crime and accidents associated with more structures and more people on site. Crime and safety issues during project operation may include: theft of building materials and operational equipment, malicious mischief, graffiti, and vandalism.

The proposed project would include security measures such as fencing along site perimeter of all four individual sites, security cameras, and security lighting, which would decrease the likelihood of crime on the project site during operation. There will be a long-term increase of 5 employees, including 3 full-time employees and 2 volunteers, associated with the visitors center on the Synergy Oil Field Site. The increase in the number of employees is considered negligible in terms of the impact on the need for police services, and would not require the construction of a new police station or improvements to the existing station that serves the project site. Although the proposed visitors center would increase the number of daytime visitors on the Synergy Oil Field site, the proposed project would pay fees to compensate for any impacts to police services anticipated from its operation. This includes the City's Police Facilities Impact Fee as part of the project building fees, as well as the Proposition H oil barrel tax that funds police services including salaries, worker benefits and academies. Therefore, it is not expected that the proposed project would result in the need for new or physically altered facilities in order to maintain acceptable response times for police protection.

Finding

Project-related impacts to police protection services would not result in the need for new or altered facilities to maintain acceptable response times; therefore, impact would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Similar to the proposed project, other projects in the LBFD and LBPD's service area would pay the Fire Facilities and Police Facilities Impact Fees as determined appropriate by LBFD and LBPD, which would help offset any impacts from those projects on fire and police services. Further, any oil-producing projects would be taxed like the proposed project according to Proposition H, which generates funding to support fire and police protection services. According to the most recent 2016 RTP/SCS Growth Forecast, the population in Long Beach is projected to be approximately 484,500 persons by the year 2040. This represents a decrease of approximately 458 persons from the 484,958 persons in 2016; however, the number of jobs in the City is expected to increase to approximately 181,700 jobs by the year 2040 from the current 158,928 jobs (SCAG 2016). Increased property and sales tax from future new developments would increase the City's General Funds, which would also provide funding for any capital improvements necessary to maintain adequate fire protection facilities, equipment, and/or personnel. Furthermore, as with the proposed project, individual development projects pursuant to the City's General Plan would be reviewed by the City and LBFD for consistency with fire code requirements including emergency access as detailed in the City's Municipal Code, and would be required to comply with all applicable IFC and City Municipal Code fire-related regulations in effect at the time building permits are issued. Therefore, compliance with existing regulations pertaining to fees

and fire code would ensure the proposed project in combination with other projects would not result in significant cumulative impacts to fire and police protection services.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.12 Recreation

Impact RE-1: The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.

Construction

During construction of the proposed project, there would be a temporary increase in construction workers on the project site who would not likely relocate their households as a consequence of working on the proposed project. Therefore, the short-term increased employment of construction workers would not increase demand or use of the existing parks and recreation facilities. It is anticipated that construction workers would not use nearby parks during their lunch break, as lunch breaks are not typically long enough for workers to take advantage of such facilities; however, if construction workers were to use the existing recreational facilities it would only increase use at those facilities for up to 60 minutes a day, which would be considered a less than substantial impact.

Construction of the Class II bikeway improvements and new sidewalks are proposed by the project and would result in temporarily inaccessibility to portions of the bikeway; however, bikeway detour signs would be posted to redirect bike users to utilize other bikeways in the area during this temporary construction period. The streets that would be impacted would be adjacent to the four property sites.

Operation

The proposed project would not introduce any permanent residents to the project area. The proposed project would create up to 30 new permanent employment positions for the oil operations, in addition to the 15 existing employees, for an approximately 40-year time period while the wells are phased out. For the oil production facilities at the Pumpkin Patch and LCWA sites, there would be approximately 40 to 60 total personnel per day, and once all drilling has been completed, the number of on-site employees would be reduced to approximately 4 to 8 full-time employees on each site. As these employees would most likely come from the workforce in the project area, this would not introduce an increased use on the existing parks and recreational facilities in the project area.

The proposed project would also introduce approximately 5 new employees, including 3 full-time employees and 2 volunteers, to the Synergy Oil Field site, as a result of the development of the visitors center, associated parking lot, and public access trail. It is anticipated that the majority of jobs would be filled by the local labor force who would not likely relocate their households as a consequence of working on the proposed project. Accordingly, there would not be a corresponding demand or increased use of the existing parks and recreation facilities. Moreover, recreational opportunities would be provided on site for new employees. Similar to the construction workers, as discussed above, it is anticipated that the employees would not use nearby parks

during their lunchbreak; however, if employees were to use the existing recreational facilities during their lunch break, it would only increase use at those facilities for up to 60 minutes a day.

Additionally, the proposed project would introduce usable open space, a public access trail, overlook terrace with picnic facilities, visitors center, and associated parking on the Synergy Oil Field site. There is no turf in picnic area but would comprise a mix of gravel and native vegetation. The Synergy Oil Field site would be open to public access from dawn until dusk, 7 days a week. This would introduce an anticipated 15,000 to 20,000 visitors to the project site each year. Due to the increased availability of recreational amenities at the Synergy Oil Field site, the proposed project could increase the use of existing recreational facilities in the surrounding area. Proposed improvements to the bikeways and sidewalk improvements along the frontages of the four individual sites would be direct beneficial effects. Therefore, the proposed project would not result in the increased use of existing parks or recreational facilities such that substantial deterioration of these resources would occur or be accelerated. Additionally, the project would expand and enhance recreational opportunities available within the project vicinity. This would be a direct beneficial effect.

Finding

Project construction workers and permanent employees would not generate an increase in demand for park and recreation facilities such that it would result in the accelerated physical deterioration of a park or recreation facilities; therefore, impacts would be less than significant, and no mitigation measures would be necessary.

Impact RE-2: The project would include recreational facilities but would not require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Currently, there are no existing recreational facilities located on the project site. The proposed project would both construct and enhance recreational facilities on site. As described throughout this EIR, the visitors center, public access trail, and associated parking lot would be constructed in areas with the least potential to disturb native habitat and any potentially significant impacts associated with the visitors center, public access trail, and upgraded bikeway would be mitigated to the maximum extent possible. No additional mitigation measures would be needed.

The project includes the construction of a new pedestrian perimeter trail along the Studebaker edge of the Synergy Oil Field site, the relocation of the Bixby Office building and renovation of the building for use as a visitors center and wetlands restoration on the northern portion of the Synergy Oil Field site. The impacts of wetlands restoration and trail construction have been analyzed in other sections of the EIR, including air quality, traffic, and noise. The impacts of renovating the existing Bixby Ranch Field Office building has been analyzed in Section 3.4, *Cultural Resources*, due to its potential historical significance. None of the impacts of the construction work associated with the open space and habitat restoration and construction of these recreational/public access amenities was considered a significant, unavoidable impact, and would, once constructed and operational, provide a beneficial impact with respect to increased recreational opportunities in the City.

Finding

Project-related impacts with the increased availability of recreational amenities would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

The cumulative project area for the consideration of cumulative recreation impacts is the SEADIP area. Although the 16 cumulative projects identified in Table 3-1; List of Cumulative Projects, in the EIR could contribute to a cumulative impact to recreation by increasing the demand for recreational opportunities and facilities, the project could also result in recreational opportunities in the area. As the proposed project would have a less-than-significant impact on recreation, its incremental effects would not be considered cumulatively considerable and, therefore, cumulative impacts on recreation would be less than significant.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.13 Transportation and Traffic

Impact TRA-1: The project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Construction

Construction of the proposed project has the potential to affect the transportation system through the hauling of excavated materials and debris, the transport of construction equipment, the delivery of construction materials, and travel by construction workers to and from the project site. Although construction activities would be phased over the course of the overall construction period, the analysis of potential impacts assumed that they would all occur simultaneously, in order to evaluate a worst-case scenario with the maximum number of workers and trucks accessing the project site. This conservative approach yielded a total of approximately 556 daily trips that could be generated by the up to 160 workers (320 daily trips) and up to 118 trucks (236 daily trips) accessing the project site. Therefore, the maximum trip generation associated with construction activity would be approximately 594 daily trips for about 10 days. It should be noted that due to typical construction start and finish times, these trips would occur outside the heavily-congested peak traffic periods and would, therefore, not contribute to delay currently experienced by vehicles traveling through the study area. Additionally, trucks accessing the project site would use City-designated truck routes (e.g., PCH, Bellflower Boulevard, 7th Street) to the extent feasible (LBDPW 2006); the Applicant has agreed to work with City staff to avoid sensitive areas and/or areas of concern to avoid any impacts to the highway network and adjacent properties.

While construction impacts would be less than significant, the City is proposing the following standard Condition of Approval for a Construction Traffic Management Plan (CTMP) for the project. The CTMP shall be submitted to the City's Development Services Department for review, and issuance of demolition, grading, or building permits is subject to approval of the CTMP. The City is proposing the following Conditions of Approval as part of its Site Plan Review procedures:

Condition of Approval TRA-1: Construction Traffic Management Plan

The following conditions are recommended:

- A flagman shall be placed at the truck entry and exit from the project site.
- To the extent feasible, truck trips (i.e., hauling of export and import materials, and deliveries and pick-ups of construction materials) shall be scheduled during non-peak travel periods and coordinated to reduce the potential of trucks waiting to load or unload for protracted periods of time.
- Access shall remain unobstructed for land uses in proximity to the project site during project construction.
- Minimize lane and sidewalk closures to the extent feasible. In the event of a temporary lane or sidewalk closure, a worksite traffic control plan, approved by the City of Long Beach, shall be implemented to route traffic, pedestrians, or bicyclists around any such lane or sidewalk closures.
- A CTMP shall be developed by the contractor and approved by the City of Long Beach. In addition to the measures identified above, the CTMP shall include the following:
 - Schedule vehicle movements to ensure that there are no vehicles waiting off site and impeding public traffic flow on the surrounding streets.
 - Establish requirements for the loading, unloading, and storage of materials on the project site.
 - Coordinate with the City and emergency service providers to ensure adequate access is maintained to the project site and neighboring businesses.
 - Establish hotline operating 24 hours per day, 7 days per week that concerned citizens can contact to lodge construction traffic-related concerns.
 - Maintain a daily log of which trucks and equipment are used on site.
 - Pre- and post-construction surveys of site-adjacent City roadways and properties in order to identify and repair any damage caused by construction activities.

Operation

Operational trip generation characteristics of the proposed project are provided as worst-case estimates and summarized below:

- Oil production facilities would generate a total of 61 daily trips with approximately five trips during the AM and PM peak hours.
- Visitors center would provide about 50 parking spaces for employees and visitors. There is no quantitative information regarding the trips associated with the visitors center; however, the on-site parking supply would not be expected to accommodate a high number of daily vehicle trips, and based on knowledge of operations at similar, nearby visitors centers, it is assumed that the majority of these trips would not occur during the peak traffic hours.
- Drilling of wells – Personnel and ancillary truck traffic would generate 132 to 192 trips per day. Because oil drilling operations occur throughout the day, it is assumed that the majority of these trips would not occur during the peak traffic hours. Once the wells have been drilled, they would require periodic maintenance and workover operations. Vehicle trips associated with these activities are much less than those required during the active drilling process. Consistent with well drilling activities, the majority of these trips would be outside of the peak traffic periods.

Based on the above, the proposed project would not generate 50 or more net new peak-hour trips during the AM and PM peak hours, which is the screening criterion to determine when project-specific traffic impacts are required to be assessed based on the City's guidelines.

Finding

The construction and operation of the proposed project would result in a less-than-significant impact to operating conditions for the existing area roadway system. Implementation of Condition of Approval TRA-1, would further reduce a less-than-significant construction impact. Therefore, no mitigation measures would be necessary.

Impact TRA-2: The project would not conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Construction

Metro is responsible for implementing the CMP for the County of Los Angeles. The CMP for Los Angeles County requires an analysis of any project that could add 50 or more trips to any CMP intersection or more than 150 trips to a CMP mainline freeway location in either direction during either the AM or PM weekday peak hours. The only CMP facility located in the vicinity of the proposed project is the intersection of PCH and 2nd Street/Westminster Avenue, which currently operates at LOS E during both the AM and PM peak hours. As stated above in the discussion of Impact TRA-1, implementation of the proposed project would not generate 50 or more new net trips during the AM or PM peak hours; therefore, the proposed project would not result in a significant impact to a CMP roadway intersection or CMP freeway segment during construction activities. Implementation of Condition of Approval TRA-1 would further reduce this less than significant impact.

Operation

As stated in the discussion Construction impacts above, the only CMP facility located in the vicinity of the proposed project is the intersection of PCH and 2nd Street/Westminster Avenue, which currently operates at LOS E during both the AM and PM peak hours. As stated above in the discussion of Impact TRA-1, implementation of the proposed project would not generate 50 or more new net trips during the AM or PM peak hours; therefore, the proposed project would not result in a significant impact to a CMP roadway intersection or CMP freeway segment during operation of the project.

Finding

Construction and operation of the proposed project would not conflict with the CMP for Los Angeles County and, therefore, would result in a less-than-significant impact. Implementation of Condition of Approval TRA-1, would further reduce the less-than-significant construction impact.

Impact TRA-3: The project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks

The proposed project is located within the airport influence area of the Joint Forces Training Base (JFTB) Los Alamitos (OCALUC 2016); however, as established in the *Southeast Area Specific Plan Draft EIR* (PlaceWorks 2016), the project site is not within safety hazard zones or noise contours of the JFTB. Further, the proposed project would not include any height elements that would conflict with height restrictions identified in the Airport Environs Land Use Plan (OCALUC 2016). Therefore, implementation of the proposed project would not result in any impacts to air traffic patterns.

Finding

No impact to air traffic patterns would occur, and no mitigation measures would be necessary.

Impact TRA-4: The project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Construction

Trucks accessing the project site would use City-designated truck routes (e.g., PCH, Bellflower Boulevard, 7th Street) to the extent feasible. Additionally, the Applicant has agreed to avoid sensitive areas and/or areas of concern to avoid any impacts to the highway network and adjacent properties. The implementation of Condition of Approval TRA-1, described above under impact discussion TRA-1, would further reduce this less-than-significant construction impact.

Operation

The proposed project would include the following new driveways:

- **Pumpkin Patch Site:** a new 24-foot-wide access driveway off of Studebaker Road with access to the two-story office building; two new one-way driveways (33.5 feet wide for ingress, 31 feet wide for egress) off Studebaker Road with access to the warehouse and oil production facilities; and
- **LCWA Site:** replacement of the existing driveway with a new 30-foot-wide access driveway off Studebaker Road; a new 30-foot-wide access driveway (right in/right out) off Westminster Avenue.

On-site traffic signing and striping would be implemented in conjunction with detailed construction plans for the project. Sight distance at the project accesses would comply with standard California Department of Transportation and City of Long Beach sight distance standards. The final grading, landscaping, and street improvement plans would demonstrate that sight distance standards are met. Such plans would be reviewed by the City and approved as consistent with this measure prior to issue of grading permits.

In addition to the driveways described above, on-site vehicular and pedestrian circulation would be accommodated by the proposed project. The proposed project would also upgrade the streets fronting all four properties of the project site with pedestrian and bikeway improvements.

All of the transportation facilities described above would be designed and constructed to comply with all relevant City standards to ensure that facilities operate safely and efficiently. The City and the Long Beach

Fire Department (LBFD) have adopted roadway standards that preclude the construction of any unsafe design features. Therefore, no significant impact with operation of the proposed project would occur.

Finding

Construction of the proposed project would result in a less-than-significant impact with regard to hazards and incompatible uses. The implementation of Condition of Approval TRA-1, described above under impact discussion TRA-1, would further reduce this less-than-significant construction impact. Compliance with adopted roadway design standards would ensure that operation of the proposed project would result in a less-than-significant impact with regard to hazards and incompatible uses.

Impact TRA-5: The project would not result in inadequate emergency access.

Construction

Construction activities for the proposed project would generate truck trips and employee trips, which could temporarily increase the daily traffic volumes on local roadways and intersections; however, as described above in the discussion of Impact TRA-1, construction-related truck and employee trips would occur outside the heavily-congested peak traffic hours and would, therefore, not contribute to delay currently experienced by emergency vehicles traveling on PCH or on 2nd Street/Westminster Avenue.

Construction staging would occur primarily on site and would not be expected to disrupt access to nearby uses. No road closures are anticipated. While roadway closures are not anticipated, any work within the existing right of way would have to comply with Caltrans permitting requirements. This includes a traffic control plan that adheres to the standards set forth in the California Manual on Uniform Traffic Control Devices (MUTCD) (Caltrans 2017). As part of these requirements, there are provisions for coordination with local emergency services, training for flagmen for emergency vehicles traveling through the work zone, temporary lane separators that have sloping sides to facilitate crossover by emergency vehicles, and vehicle storage and staging areas for emergency vehicles. MUTCD requirements also provide for construction work during off-peak hours and flaggers. The implementation of Condition of Approval TRA-1, described above under impact discussion TRA-1, would further reduce this less-than-significant construction impact.

Operation

The proposed project would be designed and constructed in accordance with all applicable LBFD design standards for emergency access (e.g., minimum lane width and turning radius). Compliance with these codes and standards is ensured through the City's and LBFD's development review and building permit process. Therefore, no significant emergency access impacts would occur with operation of the proposed project.

Finding

Project-related impacts to emergency access would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative traffic impacts are generated when the proposed project, combined with traffic generated by complete buildout of the City's General Plan, contributes to unacceptable operating conditions on study area roadways. A significant cumulative impact would be identified when a facility is projected to operate below

the LOS standards due to cumulative future traffic in combination with project-related traffic increases. The proposed project would not generate 50 or more net new peak-hour trips, which is the screening criterion for which impacts are required to be assessed based on the City's guidelines. As such, the operation of the proposed project would result not result in a cumulatively considerable impact to the performance of nearby roadways (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.14 Utilities and Service Systems

Impact UT-1: The project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Construction

During project construction activities a minimal amount of wastewater would be generated by construction workers and collected by portable toilet facilities. All wastewater generated in portable toilets would be collected by a permitted portable toilet waste hauler and appropriately disposed of at one of the County identified liquid waste disposal stations. These waste disposal stations are permitted by the Los Angeles Regional Water Quality Control Board (LARWQCB).

Operation

The majority of wastewater generated by the proposed project would be saline water produced as a result of oil extraction operations. In addition, some wastewater is generated during the processing of the extracted oil, largely through the cleaning of oil processing equipment. Currently, the produced water and processing water is disposed of into the sanitary sewer system for treatment at Los Angeles County Sanitation District (LACSD) treatment facilities. The proposed project would change this practice by installing injection wells on the Pumpkin Patch and LCWA sites. The produced water and processing water would be treated and injected back into the oil production zones. The re-injection would remove this wastewater from the current practice of discharge to the sewer system to the LACSD treatment facilities. This would eliminate the potential to conflict with Regional Water Quality Control Board (RWQCB) wastewater treatment requirements and would result in no impact.

Operation of the proposed visitors center at the Synergy Oil Field site has the potential to result in a nominal increase of the amount of sanitary wastewater generated due to the use of the visitors center facilities. Sanitary wastewater generated by the visitors center would be treated at the existing LACSD treatment facilities. LACSD has been issued a facility-specific NPDES permit by the LARWQCB. Waste discharge requirements (WDRs) for the proposed project are based on all applicable State and federal regulations, policies, and guidance. Although the volume of wastewater would nominally increase, the nature of wastewater disposed to the sanitary sewer system would remain unchanged and would, therefore, still be acceptable under the existing site discharge requirements. The proposed project would continue to be served by existing sewer systems located within public streets and rights-of-way and the LACSD treatment facilities.

The transfer of oil production operations personnel to the Pumpkin Patch site would relocate the existing sanitary wastewater source from the Synergy Oil Field to the Pumpkin Patch site. The sanitary waste would still be discharged to the same sewer distribution system and to the same LACSD treatment facilities, all under the same discharge requirements and regulations.

Finding

Project-related impacts related to wastewater treatment requirements would be less than significant, and no mitigation measures would be necessary.

Impact UT-2a: The project would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The current operational water use is about 0.15 afy. The following construction activities would require water:

- Installation of oil production wells and water injection wells
- Plugging and abandonment of existing wells
- Hydrostatic testing of new pipelines and storage tanks
- Construction of new facilities (buildings, well cellars, pads for storage tanks, oil processing equipment, and associated infrastructure)
- Cleaning equipment and dust suppression

The following operational activities would require water:

- Routine processing of oil
- Irrigation of the vegetation installed for the wetlands habitat restoration for the first two years
- Visitors center and the Pumpkin Patch Operations Building

Water for construction and operations would be provided by the Long Beach Water Department (LBWD). The projected water use for construction activities and operations that would be acquired from the LBWD over the next 60 years is summarized in Draft EIR Table 3.17-4, Summary of Projected Annual Water Usage. The maximum combined construction and operations water use would be about 124 acre-feet from the third year through eleventh year when oil wells would be constructed at the Pumpkin Patch and LCWA sites. Water use would be less in all other years. The LBWD expects to have at least 76,983 afy of available surplus water, which exceeds the needs of the proposed project for any year.

The proposed project would continue to receive water supplies through the existing water lines that serve the project area. Water supply pipelines would be installed to connect the Synergy Oil Field site, the Pumpkin Patch site, and the LCWA site to existing water supply pipelines in adjacent roadways. The City Property site would not require water service. Although construction of the on-site public water main and distribution lines would be required to support the operations facility, no extensions or expansions to the water pipelines supplying the project site would be required. The necessary water supply line improvements are included as part of the proposed project and would not result in any physical environmental effects beyond those identified in the EIR.

Finding

Although the proposed project would result in an increased volume of water used for some years, the proposed project would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, and impacts would be less than significant. No mitigation measures would be necessary.

Impact UT-2b: The project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Wastewater Treatment Facilities

Construction

Drilling wells for the proposed project would require the use of water for mixing the drilling mud; however, upon completion, the drilling mud would be sent off site for disposal to a landfill permitted to accept drilling mud. The mud would not be sent to a wastewater treatment facility.

All wastewater generated during construction, including water from washing down trucks, equipment, and concrete construction pads, would be stored on site within temporary storage tanks. These tanks would store all wastewater and would be periodically hauled off site by vacuum trucks. Construction workers would use portable sanitary units during construction activities for the proposed project. Wastewater generated during construction of the proposed project would be minimal and would not require the construction of new wastewater treatment facilities. After settling out the solids, the wastewater would be sent to the LACSD treatment facilities for treatment and disposal. The LACSD treatment plants have capacity to accommodate this increase. Therefore, construction of new or expanded facilities would not be required to accommodate the construction of the proposed project and no significant impact would occur.

Operation

Currently, the majority of wastewater associated with the project site is the saline water produced as a result of oil extraction operations. This produced water is currently conveyed to the sanitary sewer system for treatment at LACSD treatment facilities. The proposed project would no longer convey saline water into the sewer system. Instead, the produced water would be injected back into the oil production zones. This injection practice would decrease the volume of wastewater currently discharged to the sanitary sewer system.

In addition, area drains on the Pumpkin Patch and LCWA sites would be routed to the well cellars, which would provide the capacity to contain a 25-year 24-hour rainstorm. The stormwater would be processed through into the facility's water treatment system and then injected into the oil production zones, preventing any on-site rainfall from being discharged from the facilities. Stormwater that accumulates within the curbed areas around process equipment would be held within the curbed area until it can be visually inspected before being drained to the well cellars, processed through the water treatment system and then injected into the oil production zones. Similarly, stormwater that accumulates within the containment walls around the storage tanks would be held until it can be pumped to the water treatment system and then injected into the oil production zones.

Although the volume of sanitary wastewater (e.g., toilets, washrooms) would increase due to the increase of employees and by the public using the visitors center, such an increase can be accommodated by the LACSD treatment plants.

Because of the comparatively large reduction in waste water generated from oil production, there would be no requirement for the construction of new or expanded wastewater treatment facilities to serve the proposed project. Additionally, the existing sewer lines are sized to accommodate the volume of wastewater produced from the project. Because construction of new or expanded facilities is not required to accommodate the proposed project and the overall volume of wastewater would decrease, there would be no operational impacts associated with the provision of these facilities to serve the project.

Finding

There would be no impact to wastewater treatment facilities, and no mitigation measures would be necessary.

Impact UT-3: The project would not require or result in the construction of new stormwater drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.

Construction and Operation

Stormwater runoff from the area around the visitors center of the Synergy Oil Field site would be routed to bioretention basins that would control stormwater flow rates to be equal or less than the pre-developed condition. The northern portion of the Synergy Oil Field site would be restored where stormwater would flow naturally into the restored wetlands and ultimately into the Los Cerritos Channel. The proposed drainage patterns around the visitors center of the Synergy Oil Field site would be designed to have stormwater runoff sheetflow into swales, gutters, and biofiltration BMPs before discharging into the existing City-wide storm drain system. Per the recommendations of the project LID Plan, water quality BMPs would be implemented on all individual sites except the City Property site.

All stormwater on the Pumpkin Patch and LCWA sites would be routed to the well cellars designed to contain a 25-year 24-hour rainstorm event. The stormwater would then be pumped into the facility's on-site water treatment system to ultimately be injected into the oil reservoirs, preventing any on-site rainfall or stormwater from being discharged from the Pumpkin Patch and LCWA sites.

Therefore, the project would not require the expansion of any off-site stormwater drainage facilities. The construction of the on-site stormwater drainage facilities would be designed in accordance with the City Stormwater Manual and MS-4 Permit requirements.

Finding

With the addition of on-site injection of stormwater (Pumpkin Patch and LCWA sites), implementation of the new BMPs proposed within the LID Plan, and compliance with applicable regulatory requirements, impacts related to the need to construct or expand stormwater drainage facilities would be less than significant, and no mitigation measures would be necessary.

Impact UT-4: The project would have sufficient water supplies available to serve the project from existing entitlements and resources.

As discussed above in Impact UT-2a, the existing public water supply would have sufficient available surplus water supplies compared to the maximum 1-year needs of the project.

Finding

Impacts related to water supply would be less than significant, and no mitigation measures would be necessary.

Impact UT-5: The project would result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Construction

Currently, wastewater flows from the Synergy Oil Field and City Property sites are conveyed to existing LACSD trunk sewer lines; no wastewater is currently generated at the Pumpkin Patch and LCWA sites. Wastewater generated during construction, including water from washing down trucks, equipment, and concrete construction pads would be stored on site within temporary storage tanks. Tanks would be used to store all wastewater to be hauled off site periodically by vacuum trucks. Hydrostatic test water would be acquired from the LBWD, and would be stored and reused on site to the extent possible. Then the water would be routed to the on-site injection wells and not routed to the sanitary sewer system. Wastewater generated during construction activities would be nominal compared to the 425 mgd capacity of the JWPCP and LBRP treatment facilities of the LACSD. Therefore, the construction of the proposed project would not result in substantial capacity impacts to LACSD and impacts related to the provision of wastewater treatment in addition to LACSD's existing commitments.

Operation

As discussed above in Impact UT-2b, the majority of currently generated wastewater is produced water from oil extraction operations. The project would install injection wells that would return this produced water to the oil production zones, thus eliminating this wastewater source. This would reduce the volume of wastewater produced by the site by approximately 0.5 mgd or 566 afy. Wastewater from facilities safety showers, wash down connections, and facility operations would be also sent to the injection wells. Wastewater generated from on-site employees and recreational visitors to the visitors center would be nominal compared to the 425 mgd capacity of the combined JWPCP and LBRP treatment facilities and no new or expanded facilities would be needed. Therefore, because the proposed project would result in an overall decrease in the volume of wastewater, there would be no impact to the operational capacity of the LACSD wastewater treatment facilities.

Finding

Project-related impacts regarding the adequacy of the wastewater treatment provider to serve the proposed project's demands in addition to their existing commitments would be less than significant, and no mitigation measures would be necessary.

Impact UT-6: The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Construction

Demolition and construction activities would generate solid waste from the demolition of existing structures (the existing oil wells, piping, and associated infrastructure to be removed from the Synergy Oil Field and City Property sites); the previously landfilled waste to be removed from the Pumpkin Patch site, if needed; and construction activities at the Pumpkin Patch site, LCWA site, and the oil and utility pipeline connecting the Pumpkin Patch and LCWA sites. The solid waste would include metals, concrete, asphalt, wood, cardboard, glass, plastics, soil, and other materials.

The majority of the metals waste would be recycled at local metals recyclers. Some other solid waste may also be recycled such as asphalt, concrete, and the boxes and crates used in the shipment of materials, depending on the nature of the material. For example, asphalt plants would be unlikely to accept asphalt mixed with soil. Consequently, it is anticipated that some of the listed demolition and construction waste may not be acceptable for recycling. The types and volumes of solid waste anticipated to be sent for disposal at landfills is summarized in Draft EIR Table 3.17-5, Anticipated Volumes of Solid Waste for Landfill Disposal During Construction. The anticipated volumes conservatively assume that all of the landfill material at the Pumpkin Path would be removed.

The five landfills that can serve the project would have the capacity to accept all of the solid waste. Therefore, construction and demolition activities of the proposed project would not result in the need to expand the existing landfill facilities or construct a new landfill facility. Contaminated soil would be segregated and disposed of at the Kettleman Landfill, which is permitted to accept hazardous waste. The Kettleman Landfill is in the process of expanding its hazardous waste unit capacity by an additional 4.9 million cubic yards, which is anticipated to provide an additional 8 to 9 years based on the typical rate of hazardous waste disposal (DTSC 2014).

Operation

Operation and maintenance of the proposed project would result in minimal trash generation, mainly personal waste generated by operation and maintenance crews. The new office building would recycle waste such as pallets, cardboard and paper boxes, paper, plastics, scrap steel, scrap aluminum, and scrap wire. Other office-type trash and rubbish would be collected in waste bins and disposed of by Long Beach waste haulers. The typical volume of operations waste that would be sent for disposal at an off-site landfill is anticipated to be about 13 tons per year. The project facilities would also generate solid waste from oil and gas production operations, primarily solids brought up from production wells during the extraction process. This material would be transported off site for further processing, likely to a petroleum processing facility.

As discussed above, the five landfills would have the capacity to accommodate the amount of trash generated by the proposed project. The proposed project would not result in the need to expand the existing landfill facilities or construct a new landfill facility.

Finding

Construction and operational activities would result in less-than-significant impacts related to landfill facilities, and no mitigation measures would be necessary.

Impact UT-7: The project would comply with federal, state, and local statutes and regulations related to solid waste.

Construction

As previously discussed, the project would generate various materials that would be considered solid waste. A majority of this material would consist of non-hazardous materials that would be acceptable at the five landfills that can serve the project under the waste acceptance criteria in their current operating permits. As previously discussed, the three landfills that can serve the project have the daily and total available capacity to accept the solid waste that would be generated from operation of the proposed project. There are two sources of solid waste that may require disposal as a hazardous waste at a disposal facility permitted to accept hazardous waste.

- Soil at the Synergy Oil Field and the City Property sites is currently being investigated (tested) for the presence of contaminants in soil at concentrations above screening levels. If present, contaminated soil would be segregated and disposed of at the Kettleman Landfill, which is permitted to accept hazardous waste.
- Pipeline segments that exceed action levels for naturally occurring radioactive materials would be segregated from other materials for handling, disposed as low-level radioactive waste, and hauled to a facility designed to accept these wastes, likely the landfill in McKittrick, California.

For all remaining solid waste, the project would comply with all City and County construction and demolition requirements during construction of the proposed facilities. All non-hazardous solid waste would be hauled off site by truck to one or more of the previously listed solid waste landfills. The proposed project would comply with all federal, State, and local statutes related to solid waste disposal.

Operation

The City is required to comply with the California Integrated Waste Management Act of 1989, requiring diversion of solid waste from landfills through reuse and recycling. The project would be required to recycle during its operation. As previously discussed, any recyclable materials would be segregated and sent to recycling facilities permitted to recycle the materials. Materials that cannot be recycled would be sent to disposal facilities licensed to accept the solid waste.

Finding

Project-related impacts regarding compliance with solid waste regulations would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

Cumulative developments within the urban and developed areas of the City that are served by the JWPCP or LBRP would consist of infill and redevelopment projects. Cumulative development could also include industrial uses that could include similar uses to those that would be implemented by the proposed project. These similar land uses are not expected to discharge wastewater that contains harmful levels of toxins beyond the regulations of the LARWQCB, and all effluent would comply with the wastewater treatment standards of the RWQCB. Similar to the proposed project, industrial facilities that have the potential to discharge hazardous wastewater would require specific permitting by the RWQCB prior to connecting to the sewer system, which would ensure that flows are within the regulations of the LARWQCB. Therefore, impacts

related to the potential for cumulative projects to exceed wastewater treatment requirements of the LARQCB would be less than significant.

Implementation of the proposed project would not generate wastewater that contains harmful levels of toxins and all effluent would comply with the wastewater treatment standards of the LARWQCB. Therefore, the project would not generate wastewater that could combine with wastewater from related projects to result in an exceedance of the LARWQCB regulations. The project would result in a less than cumulatively considerable impact to wastewater treatment requirements of the LARWQCB (less than significant).

Cumulative projects in the area would result in the need for new or upgraded water infrastructure. The construction activities associated with new or upgraded water facilities, if needed in by future cumulative projects, would be analyzed at such time discretionary approvals for those projects are considered. The proposed project has evaluated infrastructure needs for its water service and has included connections to existing water service pipelines to ensure that implementation of the project would be served by adequate infrastructure. Because the project would not require the construction of water facilities beyond the improvements that are part of the project, the project would not have a cumulatively considerable contribution to potential significant cumulative impacts associated with water infrastructure (less than significant).

The proposed project would reduce the volume of wastewater sent to the sewer system. Therefore, the project would not have a cumulatively considerable contribution to potential significant cumulative impacts associated with wastewater infrastructure (less than significant).

Groundwater rights are adjudicated in the Basin, which has regulated groundwater supplies. Management of the adjudicated Basin and the prescriptive allowable pumping rights for LBWD and other agencies that access the groundwater basin reduces the potential of incremental increases to groundwater pumping that could result in a cumulatively considerable impact on the groundwater supplies. In addition, every water purveyor provides projections for water supply and demand through 2040 that includes imported water and recycled water sources. By using SCAG growth projections, each water supply agency within the project area should adequately be able to monitor supplies and plan accordingly. As a result, cumulative development would result in less than significant cumulative impacts to water supply. Because the proposed project as well as cumulative projects would result in less than significant impacts, the implementation of the proposed project would not result in cumulatively considerable impacts to water supply (less than significant).

Because the cumulative area is urban, developed, and is generally covered with impervious surfaces, development of cumulative projects would not result in a substantial increase in impervious surfaces in the area or substantially increase stormwater and runoff flows through the stormwater drainage system. In accordance with state and regional MS4, LID, and County SUSWMP regulations, projects are required to maintain pre-project hydrology, such that no net increase of off-site stormwater flows would occur. City of Long Beach MS4 Permit conditions require a hydrology/drainage study to demonstrate that all runoff would be appropriately conveyed and not leave the project site at rates exceeding pre-project conditions, prior to receipt of necessary permits. As a result, increases of runoff from cumulative projects that could cumulatively combine to impact stormwater drainage capacity would be less than cumulatively significant (less than significant).

Areas surrounding the project area are generally covered with impervious surfaces and development of cumulative projects would not substantially increase the amount of impervious surfaces and runoff, such that

existing storm drains would be overwhelmed because all development projects would be required to comply with the same SUSWMP, LID, and RWQCB permit requirements to retain the difference between the volume pre- and post-construction runoff volume. In addition, implementation of the proposed project would include installation of drainage inlets that lead to bioretention BMPs. The drainage facilities would help to capture, retain, and utilize some surface water runoff, which would reduce the amount of surface runoff in the storm drains. Overall, with implementation of new drainage/bioretention BMPs and compliance with applicable regulatory requirements, the project's contribution to cumulative impacts related to stormwater drainage capacity would be less than cumulatively considerable (less than significant).

The geographic scope of cumulative analysis for landfill capacity is the service area for the Olinda Alpha Landfill, Frank R. Bowerman Landfill, El Sobrante Landfill, Waste Management Simi Landfill, Azusa Land Reclamation, and Kettleman Landfill, which serve the project area. These five landfills are projected to remain open until about 2030 to up to 2053. The lifespan of these landfills include the existing and projected solid waste that is anticipated from the growth in the County. As a result, impacts from future growth on landfill capacity would be less than cumulatively significant. Although the proposed project would contribute solid waste to the landfills, the addition of up to approximately 103 tons of demolition and construction solid waste and 13 tons of operational solid waste per year would not substantially impact the permitted capacity of the landfills. The increase in solid waste from operation of the proposed project in combination with planned growth within the County would not require construction of a new landfill or expansion of the existing landfill to meet capacity needs. Additionally, disposal of solid waste generated by cumulative development would be subject to the requirements set forth in AB 939, AB 341, and the policies within the Los Angeles County Integrated Waste Management Plan. As a result, the project's contribution to cumulative impacts on the capacities of the landfill facilities would be less than cumulatively considerable and cumulative development would result in no impacts to solid waste statutes and regulations (less than significant).

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.3.2.15 Energy Consumption

Impact EN-2: The project would not increase demand on local and regional energy supplies, resulting in the need for additional capacity.

Construction and operation of the project would require energy primarily for the use of off-road equipment, on-road trucks and vehicles, and operations of the visitors center and Pumpkin Patch and LCWA sites. The estimated fuel consumption for the project would require a very small fraction of the state's annual fuel usage.

While construction and operation of the project would result in an increase in fuel demand as compared to existing conditions, according to the USEIA International Energy Outlook 2016, the global supply of crude oil, other liquid hydrocarbons, and biofuels is expected to be adequate to meet the world's demand for liquid fuels through 2040 (USEIA 2016e). As of December 31, 2015, California had approximately 2,333 million barrels (approximately 98.0 trillion gallons) of crude oil left in the State's reserves (USEIA 2017a). The project's fuel demand would not represent a substantial fraction of the available energy supply in terms of equipment and transportation fuels and would not substantially affect existing local and regional supply and capacity for the

foreseeable future. Furthermore, construction and operation of the project would use equipment that would be consistent with the energy standards applicable to heavy-duty equipment including limiting idling fuel consumption and utilizing fuel-efficient heavy-duty equipment that meet the stringent Tier 4 standards that reduce emissions and fuel consumption. The turbines and microgrid system means that the project would provide almost all of its own electricity and, therefore, would avoid capacity impacts on local or regional energy suppliers. The limited amount of power not generated by the turbines would be supplied by SCE and would be fraction of SCE's and the State's total usage. The project would provide crude oil supplies to refineries in the region thus providing net additional oil energy supplies.

Finding

Construction and operational energy impacts on supplies and infrastructure would be less than significant, and no mitigation measures would be necessary.

Cumulative Impacts

The State has adopted numerous regulations to improve energy efficiency from all sectors of the economy including the transportation sector. Transportation energy end-users would be required to utilize vehicles that meet increasingly stringent fuel economy standards. In addition, the State has promulgated measures, such as the anti-idling measure and emissions standards for off-road equipment and on-road vehicles and trucks. Other individual projects located within the State would be required to comply with these regulations. Compliance with these regulations would ensure cumulative projects achieve improved energy efficiency, minimize the wasteful and inefficient use of energy, and not create substantial additional demand for energy beyond the demand that is already planned for as a result of general growth in the State's population and economy. As a result, cumulative impacts would be less than significant.

Finding

The cumulative impacts of the project would not be cumulatively considerable; therefore, cumulative impacts would be less than significant, and no mitigation measures would be necessary.

2.4 Findings on Impacts Mitigated to Less than Significant

The following summary describes impacts of the proposed project that, without mitigation, would result in significant impacts. Upon implementation of the mitigation measures provided in the Draft EIR, these impacts would be less than significant.

2.4.1 Aesthetics

Impact AES-3: The project would not result in substantial degradation of the visual character or quality of the site.

Construction

Construction activities would temporarily alter the general character and quality of the project sites. For the City Property site, the only public views of the City Property site are from the San Gabriel River Bike Trail and 2nd Street and, given the broad size of the City Property site, much of the construction activities would be shielded from view. Mitigation Measure AES-1, below, would serve to relieve the visual distractions typically

associated with construction activities and commonly encountered in developed areas, particularly during excavation and foundation construction. This mitigation would also serve to reduce the potential for construction equipment traveling along local roadways and inadvertently depositing dirt and debris on the streets by requiring the staging of all construction equipment on the project sites and reducing the amount of mud and debris that leaves the sites.

Operation

Development of the proposed project would change views from public viewpoints; however, a majority of the viewpoints would be enhanced by the proposed project, and the overall visual character and quality of the site would increase with the restoration of native vegetation and wetland habitat and consolidation of oil production facilities. In order to minimize noise and visual impacts during drilling, the drilling rig on the Pumpkin Patch and LCWA sites would be enclosed in a camouflaged sound-abatement shell.

Synergy Oil Field Site

View 1: View from Pacific Coast Highway Looking Northeast toward the Synergy Oil Field Site

Over time as non-native plants, aboveground pipelines, tanks, and wells are removed a broader panoramic view of the surrounding area would be visible from PCH. Views of the restored wetlands and associated vegetation would replace existing views of non-native palm trees and oil wells and pumps located on the Synergy Oil Field site. Therefore, the proposed project would improve views of the surrounding areas. The proposed project would not alter or degrade the scenic quality of the view; instead it would enhance the quality and character of the project site as seen from PCH looking east.

View 2a: View from 2nd Street Looking North toward the Synergy Oil Field Site

Over time the aboveground pipelines, powerlines, and non-native vegetation would be removed and oil field production equipment would be plugged and abandoned or removed. The Bixby Ranch Field Office building would be relocated and raised, a surface parking lot, an overlook terrace with picnic facilities, and a trail would be constructed, and native trees and other native vegetation would be planted. The changes proposed as a part of the project would serve to enhance the scenic value and views of the Los Cerritos Wetland complex and would improve the visual character and quality of the project site.

View 2b: View from 2nd Street Looking North toward the Synergy Oil Field Site

The Bixby Ranch Field Office structure would be relocated as the visitors center and raised 5 feet to the middle ground of the viewpoint. There would be a parking lot and roadway to the left of the visitors center that would blend in with the natural landscaping of the site. Thus, the changes proposed as a part of the project would serve to enhance the scenic value and views of the Los Cerritos Wetland complex and would improve the visual character and quality of the project site.

View 3: View from Studebaker Road Looking West toward the Synergy Oil Field Site

Over time, existing non-native, invasive vegetation would be removed, native species would be planted, and wetland habitats would be restored, which would increase the quality of the scenic vista as seen from Studebaker Road and restore and enhance the visual character and quality of the Los Cerritos Wetland complex.

View 4: View from Loynes Drive Looking South toward the Synergy Oil Field Site

Over time, the non-native vegetation and chain link fence that borders the northern boundary of the site would be removed and planted native vegetation and wetland habitat would grow which would serve to enhance the existing scenic views of this portion of the Los Cerritos Wetland complex.

LCWA Site

Views 5 and 6: View from Studebaker Road Looking East toward the LCWA Site and View from Westminster Avenue (2nd Street) Looking North toward the LCWA Site

The proposed project would introduce streetscape and landscape features, including the introduction of a pedestrian sidewalk around the site, streetscape planting, and a new block wall around the perimeter of the LCWA site. The streetscape planting would, over time, provide a natural buffer and obscure views of the block wall. The proposed streetscape improvements would be the prominent focal point and would be visible to travelers on Studebaker Road and Westminster Avenue. The motorists' sensitivity to change in the viewshed is considered low to moderate. Compared to existing conditions, project implementation would enhance the visual quality of the LCWA site from viewers traveling along Studebaker Road and Westminster Avenue. In order to minimize noise and visual impacts during drilling, the 160-foot drilling rig that would move from well to well would be enclosed in a camouflaged sound-abatement shell. Occasionally, a 120-foot workover rig may be utilized on site as required for well maintenance. The collapsible workover rig would be stored on site and would only be visible to the public when in use. When visible, the view of the 120-foot workover rig would not substantially degrade the overall aesthetic character or quality of this viewshed.

City Property Site

View 7: View from 2nd Street Looking South toward the City Property Site

Over time, the pipeline infrastructure and non-native vegetation would be removed, oil wells and related infrastructure would be plugged and abandoned and/or removed, and areas would be remediated and/or revegetated. Overall, the City Property site would appear less developed the visual character and quality of the site would improve.

Pumpkin Patch Site

View 8: View from the San Gabriel River Bike Trail Looking Northwest toward the Pumpkin Patch Site

Views of the San Gabriel River in the foreground would not change with implementation of the proposed project. Additionally, a wall and landscape buffer would replace views of non-native habitat and existing structures in the middle ground. Overall, development on the Pumpkin Patch site would generally be consistent with the existing character of the site and its surroundings.

Views 9 and 10: View from Pacific Coast Highway Looking East and Looking North toward the Pumpkin Patch Site

Views from this vantage would include a view of a two-story office building and a warehouse in the distance, associated surface parking lot, streetscape planting along the eastern side of PCH, and an 18-foot-high screening wall, which would be hidden from view by landscaping on either side of the office building. The view looking north would also include a view of an entry monument welcoming visitors to the city. The warehouse would be buffered from the street by an approximately 30 feet wide vegetation buffer of trees and

shrubs. The office building and adjacent warehouse would consist of modern architecture, utilizing contemporary architectural materials. While implementation of the proposed project would obscure potential views from this vantage point, there are no significant scenic vistas in the background that would be substantially impacted. Furthermore, this type of development would be consistent with the commercial development that abuts the site to the north. Similar to the LCWA site, the 160-foot drilling rig would be enclosed in a camouflaged sound-abatement shell and a 120-foot-high workover rig may be utilized as required for well maintenance. The collapsible workover rig would be stored on site and would only be visible to the public when in use.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure AES-1: Construction contractors shall be required to strictly control the staging and cleanliness of construction equipment stored on the project site. Staging areas shall be screened from view at street level with solid wood fencing or green fence. Prior to the issuance of a building permit, the Applicant shall submit a Construction Staging, Access, and Parking Plan to the City of Long Beach Planning and Development Services Department for review and approval. Construction workers would be required to park on the Synergy Oil Field site and would be bussed to their respective construction site. Construction worker vehicles and work vehicles shall be kept clean and free of mud and dust before leaving the project site. Project contractors shall be required to sweep surrounding streets used for construction access on a daily basis to keep them free of construction-related dirt and debris.

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.1-38. This change is identified in the form of mitigation measure AES-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact AES-4: The project would not create a new source of substantial light or glare that would adversely affect day or night views in the area or that would substantially impact other people or properties.

Construction

Construction and restoration activities associated with the proposed project would create new sources of light or glare, as lighting would be used during early morning and evening work activities. Construction activities on the project site would occur between 7:00 a.m. and 7:00 p.m. and in compliance with LBMC Section 8.8.202, Construction Noise Regulations. Thus, construction lighting would be limited to a few hours a day, with most lighting use occurring during hours when the project site is partially lighted by natural dawn or dusk conditions. A minimal amount of glare could result from reflection of sunlight off windows of trucks, but this would be negligible and would not affect daytime views in the area given that there are no light-sensitive uses near the project site. Construction lighting would be aimed toward the activity and would be mostly contained within the area where work would be occurring; however, construction lighting still could result in substantial light and glare during the evening on areas with direct views of the site if lighting is not controlled and directed appropriately.

Security lighting would be provided from dusk to dawn on all construction sites, but this lighting would be minimal, restricted to the project site, and would not exceed the level of existing night lighting levels in urban areas. Mitigation Measures AES-2 would also ensure that security lighting does not pose undue light and/or glare.

Operation

The proposed project would introduce new light sources associated with security, safety, and wayfinding. While the proposed project would introduce new sources of light, it should be noted that the four individual sites that comprise the project site are located in an urban environment. Thus, lighting is not unusual in the project vicinity. Nevertheless, in compliance with the standards set forth in the SEADIP (PD-1), all lighting would be directed downward and exterior lighting would be designed and located in such a way that it does not project off site or onto adjacent uses. Automatic timers would be programmed to maximize personal safety at night while conserving energy and would be reset seasonally to match the flux of dusk and dawn. In addition, the proposed project would be required to comply with LBMC Section 21.41.259, which requires that all parking area lighting be directed and shielded to prevent light spillover to adjacent properties. Compliance with these standards would be implemented through the City's development review and building plan check process and would ensure that impacts from light and glare are reduced to a less-than-significant level.

Mitigation Measure

The following mitigation measure is included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure AES-2: Lighting Plan. Prior to issuance of a grading permit for each site, a Lighting Plan for the site shall be developed and submitted to the City of Long Beach that requires all exterior lighting to be directed downward and focused away from adjacent sensitive uses and habitats to encourage wayfinding and provide security and safety for individuals walking to and from parking areas and working at the oil facilities on the Pumpkin Patch site and the LCWA site. Compliance with the approved Lighting Plan shall be implemented through the City's development review and building plan check process.

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.1-39. This change is identified in the form of mitigation measure AES-2. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Cumulative Impacts

Scenic vistas considered in this analysis include the Los Cerritos Wetlands complex, Steamshovel Slough, Los Cerritos Channel, San Gabriel River, and the San Gabriel Mountains. Construction of the proposed project would not have an adverse effect on any of the scenic vistas. No projects have been identified adjacent to the project site that would cumulatively combine to have a substantial adverse effect on a scenic vista during construction activities. Thus, cumulative impacts on the identified scenic vistas would be less than significant.

PCH has been identified by Caltrans as an “Eligible State Scenic Highway,” but has not been designated as an Official State or County Scenic Highway (Caltrans 2016). Both the Synergy Oil Field and Pumpkin Patch sites are visible from PCH; however, given the disturbed and undeveloped nature of the Pumpkin Patch site, there are no scenic resources on the site and the scenic resources identified on the Synergy Oil Field site (Bixby Ranch Field Office, Steamshovel Slough, and the remaining wetland areas north of the slough) are not visible from PCH. Thus, the proposed project would not result in construction impacts on scenic resources within a scenic highway. No projects have been identified adjacent to either the Synergy Oil Field or Pumpkin Patch site that would cumulatively combine to have a substantial adverse effect on a scenic resource within a scenic highway during construction activities. Thus, cumulative impacts on scenic resources within a designated scenic highway during construction would be less than significant.

While construction activities would alter the general character and quality of the project site, Mitigation Measure AES-1 would serve to relieve the visual distractions typically associated with construction activities and would reduce the potential for construction related dirt and debris on nearby roadways. With implementation of this mitigation measure, the proposed project’s visual character impacts would be reduced to a less than significant level. No projects have been identified adjacent to the project site that would cumulatively combine to substantially degrade the visual character and quality of the project site during construction activities. Thus, cumulative impacts on visual character and quality of the project site during construction would be less than significant.

While the proposed project would create new sources of light and glare during construction activities, it would be required to comply with LBMC Section 8.8.202, Construction Noise Regulations, which would limit the hours of construction to primarily daytime hours. Thus, light and glare impacts from the proposed project during construction would be less than significant. No projects have been identified adjacent to the project site that would cumulatively combine to result in lighting impacts during construction activities. Thus, light and glare cumulative impacts during construction would be less than significant.

During operation of the proposed project, existing oil production facilities and invasive species would be removed and native vegetation and wetland areas would be restored on the Synergy Oil Field and City Property sites and oil production facilities would be consolidated onto the Pumpkin Patch and LCWA sites. Overall these activities would not obstruct any of the scenic vistas and would likely enhance the scenic vista of the Los Cerritos Wetlands complex. Thus, impacts on scenic vistas on the project site during operation would be less than significant. No projects have been identified adjacent to the project site that would cumulatively combine to have a substantial adverse effect on a scenic vista during operational activities. Thus, cumulative impacts on the identified scenic vistas would be less than significant.

PCH has been identified as a state- and county-eligible scenic highway and both the Synergy Oil Field and Pumpkin Patch sites are visible from PCH. Given that no scenic resources have been identified that would be visible from PCH, the proposed project would not result in operational impacts on scenic resources within a scenic highway. No projects have been identified adjacent to the Synergy Oil Field or Pumpkin Patch sites that would cumulatively combine to have a substantial adverse effect on a scenic resource within a scenic highway during operation. Thus, cumulative impacts on scenic resources within a designated scenic highway during operation would be less than significant.

Development of the proposed project would change views from public viewpoints; however, a majority of the viewpoints would be enhanced by the proposed project, and the overall visual character and quality of the

project site would increase with the restoration of native vegetation and wetland habitat and consolidation of oil production facilities and, thus, the proposed project would not degrade the existing visual character or quality of the project site or its surroundings, and impacts would be less than significant. No projects have been identified adjacent to the project site that would cumulatively combine to substantially degrade the visual character and quality of the project site during operation. Thus, cumulative impacts on visual character and quality of the project site during operation would be less than significant.

While the proposed project would introduce new sources of light associated with security, safety, and wayfinding, it should be noted that the four individual sites that comprise the project site are located in an urban environment. Thus, lighting is not unusual in the project vicinity. In addition, the proposed project would be required to comply with SEADIP (PD-1), which requires all lighting to be directed downward and designed not to project off site or onto adjacent uses, and LBMC Section 21.41.259, which requires that all parking area lighting be directed and shielded to prevent light spillover to adjacent properties. Compliance with these standards would ensure that impacts from light and glare are reduced to a less than significant level. No projects have been identified adjacent to the project site that would cumulatively combine to result in lighting impacts during operation. Thus, the proposed project would not cumulatively combine to result in light and glare impacts and would be less than significant.

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the project's contribution to the significant cumulative environmental effects, which are identified and described on Draft EIR pp. 3.1-39 to 3.1-41. This change is identified in the form of mitigation measures AES-1 and AES-2. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.2 Air Quality

Impact AQ-2b: The project would not violate the air quality standard and contribute substantially to an existing or projected air quality violation for operational-related NO_x emissions.

Operation

Emissions from operational activities would occur at various sites and during various phases of the proposed project. The Pumpkin Patch site would generate emissions primarily from vehicle travel, natural gas for space heating, and a diesel-powered drilling rig. Most of the site's electricity would be generated by the turbines located at the LCWA site. One drilling rig would be operated at both the LCWA and Pumpkin Patch sites but would be electrically powered. Additionally, both sites would have diesel-powered workover drilling rigs that would operate during the daytime hours for approximately 50 hours per week.

There would be four turbines at the LCWA site to combust natural gas (which is naturally co-located with crude oil deposits) to produce electricity. The turbines are expected to provide the majority of energy to the Pumpkin Patch and LCWA sites with occasional support from the Southern California Edison (SCE) grid. The office and visitors center at the Synergy Oil Field site would generate emissions mainly from vehicle travel and natural gas for heating. All sites would be subject to routine painting (i.e., for maintenance, etc.) that would also contribute to VOC emissions.

The change in project emissions would be below the SCAQMD thresholds for all pollutants except regional operational NO_x emissions. The primary emission source for this pollutant would be the turbines. The diesel drilling rigs at the Pumpkin Patch and LCWA sites would be secondary contributors. Mitigation Measure AQ-3 requires the use of diesel-powered drilling rigs that meet the most stringent emissions standards for off-road equipment. With implementation of this measure, the NO_x emissions for operations would be reduced to below the operational regional NO_x threshold.

Mitigation Measure

The following mitigation measure is included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure AQ-3: Operational NO_x Reduction Measures. Require all diesel-powered drilling rigs located at the Pumpkin Patch and LCWA sites to comply with EPA-certified Tier IV emission controls. This drilling rig equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.2-28. This change is identified in the form of Mitigation Measure AQ-3. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact AQ-3b: The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) during operations.

Operation

The project area is located within the SCAB, which is currently classified as nonattainment area for ozone, PM₁₀, and PM_{2.5}. Based on SCAQMD's cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants (VOC, CO, NO_x, SO_x, PM₁₀, and PM_{2.5}) that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard.

The proposed project would exceed regional significance thresholds for operational-related NO_x emissions. Implementation of Mitigation Measure AQ-3 would reduce operational-related NO_x emissions to below the threshold.

Mitigation Measure

The following mitigation measure is included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure AQ-3.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.2-30. This change is identified in the form of Mitigation Measure AQ-3. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact AQ-4: The project would not expose sensitive receptors to substantial pollutant concentrations in excess of the localized significance thresholds and would not result in CO hotspot impacts.

Construction

Localized Construction Air Quality Impacts—Criteria Air Pollutants

The localized impacts of the project were assessed using the SCAQMD's methodology and LSTs. The nearest sensitive receptors were identified and impacts were analyzed based on the receptor's distance from the source and size (in acres) of the proposed project area. Of the four sites, the Synergy Oil Field and Pumpkin Patch sites represent the worst-case emissions scenarios for the proposed project and were, therefore, the sites analyzed using LSTs. The Synergy Oil Field site is the closest site to any sensitive receptor and, together, the Synergy Oil Field and Pumpkin Patch sites account for the greatest levels of construction and operational activity. The on-site construction emissions generated by the proposed project would not exceed the applicable SCAQMD LSTs for NO_x, CO, PM₁₀, or PM_{2.5}. Therefore, construction of the project would not expose sensitive receptors to substantial criteria pollutant concentrations.

Operation

Operational LSTs, like construction LSTs, are evaluated for the on-site emissions of NO_x, CO, PM₁₀, and PM_{2.5} from stationary, area, and energy sources, such as building heating and cooling units, landscaping equipment and consumer products. The primary source of emissions generated from operation of the proposed facilities would be from the turbines located on the LCWA site. Furthermore, localized air impacts were analyzed at the LCWA site because its emissions represent the overwhelming majority of operational emissions between the four individual sites. The LCWA effectively represents the worst-case scenario of operational emissions on any given day. The on-site operational emissions generated at the LCWA site would not exceed the SCAQMD's LSTs for the criteria pollutants studied.

CO Hotspots

A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. Projects may worsen air quality if they increase the percentage of vehicles in cold start modes; significantly increase traffic volumes; or worsen traffic flow. While construction-related traffic on the local roadways would occur during construction, the net increase of construction worker vehicle trips to the existing daily traffic volumes on the local roadways would be relatively small and would not result in CO hotspots. Additionally, the construction-related vehicle trips would only occur in the short term, and would cease once construction activities have been completed.

During operation, truck trips would occur to transport crude oil from the site to off-site refinery locations. Worker trips and visitors would also travel to and from the site; however, the number of trips would not be

expected to cause a substantial change in traffic flow. Furthermore, CO concentrations in the project area are relatively low. Project construction or operation would not generate sufficient traffic to cause a substantial change in the CO levels.

Toxic Air Contaminants

The purpose of conducting a health risk assessment is to determine whether a significant health risk impact would result from continued exposure to toxic air contaminant (TAC) emissions emitted during project construction and operation. TAC emissions would be emitted from various sources throughout construction and operation of the project, as described in further detail below.

Construction Health Impacts

Removal of the existing facilities and construction of the new facilities would expose members of the public to diesel exhaust, which contains a variety of gaseous and solid particulate chemical compounds, many of which have been identified by CARB as TACs. During construction, diesel exhaust would be generated by off-road diesel-powered equipment, such as loaders, drill rigs, dozers, rollers, backhoes, forklifts, etc. and by on-road heavy duty hauling trucks traveling to and from the site. Of the TACs found in diesel exhaust, the primary TAC of concern is DPM, which is generated from the combustion of diesel fuel.

Operational Health Impacts

Project operations would also produce harmful emissions of TACs, which may adversely impact the health of the surrounding communities. Unlike project construction, toxic emissions associated with future operations of the project are not exclusively limited to diesel exhaust emissions. Rather, toxic emissions associated with future operations would vary based on the emission source, details of which are described in further detail below.

Turbines

The project proposes to install four gas-powered turbines to generate electricity on site, which can result in hazardous air pollutant (HAP) emissions such as formaldehyde, acetaldehyde, and benzene that can contribute to increased cancer and non-cancer risks; however, the project applicant proposes, as part of the project design, to install a CO oxidation catalyst on the turbines to reduce these harmful pollutant emissions. Formaldehyde is the most significant HAP emitted from combustion turbines and accounts for about two-thirds of the HAP emissions.

Drilling and Workover Rigs

Well stimulation activities, including the use of drill rigs and workover rigs, also produce emissions of TACs. Specifically, the use of drilling and workover rigs would generate emissions of Diesel Particulate Matter (DPM), formaldehyde, benzene, and 1,3-butadiene, which are all known TACs. Diesel-powered workover drilling rigs on the Pumpkin Patch and LCWA sites would be in operation periodically, and would contribute to the project's health risk impact.

Fugitive Emission Sources

Fugitive emissions from pipes, storage tanks, and process losses would also contribute to the project's TAC emissions. The TACs of concern from fugitive emission sources include benzene, toluene, ethyl benzene, xylene, and hexane; however, tanks at both Pumpkin Patch and LCWA sites would be fixed-roof gas blanket

design, and are designed to be both liquid- and vapor-tight, thus reducing the fugitive TAC emissions emitted by these tanks.

Off-Road Equipment and On-Road Mobile Sources

Finally, the use of on-site equipment and mobile sources, including heavy-duty diesel trucks visiting the site, would also generate emissions of DPM, which is the primary TAC found in diesel exhaust. During operation, diesel exhaust would be generated by off-road diesel-powered equipment and by on-road heavy duty hauling trucks traveling to and from the site.

Health Risk Assessment Results

Health Risk for Existing Emissions

Of the 53 wells on the Synergy Oil Field, City Property, and Pumpkin Patch sites, there are approximately 33 wells currently in production. A minimal amount of TAC emissions is generated by the operation of these wells, including DPM and VOC emissions associated with diesel workover rigs, oil truck trips, and employee travel. The operation of these existing oil wells have a combined health risk impact of approximately 92.8 in one million once the proposed project has a certified EIR and has received the necessary building permits to begin construction of the new oil facilities, the project would reduce current operations and oil production of these 53 existing wells by 75 percent to facilitate their removal. Therefore, by reducing existing oil production by 75 percent once the first building permits are issued and eventually plugging and abandoning all existing wells over a period of 40 years, implementation of the project would substantially reduce the health risk impact to nearby sensitive receptors.

Health Risk for Unmitigated Future Emissions

Overall, the worst-case health risk associated with project construction and operation exceeds the applicable health risk criteria for infant, child, adult, and lifetime cancer risk of 10 per one million. The cancer burden associated with future project emissions was calculated to be 0.958, which exceeds the SCAQMD significance threshold of 0.50.

Based on the health risk assessment modeling results, health risks would be considered potentially significant. Sources that contribute the greatest to high health risk levels mainly include diesel engines associated with short-term construction equipment and on-road hauling trucks.

Mitigation measures have been identified as part of the AQ Assessment for both short-term (construction) and long-term (operational) impacts. Mitigation Measures AQ-2 and AQ-3 would reduce NO_x emissions and effectively reduce emissions of DPM and other TACs emitted during project construction and operations, respectively. In order to reach acceptable levels of public health risk, Mitigation Measure AQ-2 must be applied to each phase of construction and Mitigation Measure AQ-3 must be applied to drilling operations.

The health risk associated with project construction and operations, when these mitigation measures are implemented, are all well below the applicable health risk criteria for infant, child, adult, and lifetime risk at the Maximum Exposed Individual Resident (MEIR).

With implementation of the mitigation measures listed above, the project's lifetime maximum individual cancer risk (MICR) of 7.50 in one million would be reduced to below the significance threshold of 10 in one million. Additionally, the chronic and acute non-cancer risks are below the significance threshold of 1.

The mitigated cancer burden associated with future project emissions was calculated to be 0.004, which is well below the SCAQMD significance threshold of 0.50.

Mitigation Measures

The following mitigation measures are included in the Draft EIR and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure AQ-2: Construction NO_x Reduction Measures. The Applicant for the proposed project shall be responsible for the implementation of the following construction-related NO_x reduction measures:

- Require all off-road diesel-powered construction equipment greater than 50 hp (e.g., excavators, graders, dozers, scrapers, tractors, loaders, etc.) to comply with EPA-Certified Tier IV emission controls where commercially available. Documentation of all off-road diesel equipment used for this project, including Tier IV certification, or lack of commercial availability if applicable, shall be maintained and made available by the contractor to the City for inspection upon request. In addition, all construction equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB such as certified Level 3 Diesel Particulate Filter or equivalent. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. If Tier IV vehicles and construction equipment is not available, the City shall require the contractor to implement other feasible alternative measures, such as reducing the number and/or hp rating of construction equipment, and/or limiting the number of individual construction phases occurring simultaneously. The determination shall be made by the City prior to issuance of grading or building permits where evidence of the use of Tier IV equipment is not provided.
- Eliminate the use of all portable generators. Require the use of electricity from power poles rather than temporary diesel or gasoline power generators.
- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow, including during the transportation of oversized equipment vehicles.
- Provide dedicated turn lanes for movement of construction trucks and equipment on and off site. The location of these dedicated lanes shall be addressed in the Construction Trip Management Plan.
- Reroute construction trucks away from congested streets or sensitive receptor areas.
- Limited idling time to 5 minutes for both on-road trucks and off-road equipment.

Mitigation Measure AQ-3: Operational NO_x Reduction Measures. Require all diesel-powered drilling rigs located at the Pumpkin Patch and LCWA sites to comply with EPA-certified Tier IV emission controls. This drilling rig equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB.

Mitigation Measure AQ-4: Technology Review. To promote new emission control technologies, every five years following the Project approval date, the Lead Agency shall conduct a review of new air quality technological advancements. These technologies would be evaluated based on operational feasibility, technical feasibility, and cost effectiveness and financial feasibility for application. If a technology is determined to be feasible in terms of financial, technical, and operational feasibility, the Lead Agency shall identify as mitigation in any subsequent CEQA document prepared for a subsequent

discretionary construction permit to implement such technology, subject to the requirements as set forth in the *CEQA Guidelines* Section 15162(a)(3)(C).

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.2-37. These changes are identified in the form of Mitigation Measures AQ-2, AQ-3, and AQ-4. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Impact AQ-5: The project would not create objectionable odors affecting a substantial number of people.

Construction

During the construction of the project, exhaust from construction equipment may produce discernible odors typical of most construction sites; however, such odors would be temporary. The proposed project would comply with the applicable provisions of the CARB ATCM regarding idling limitations for diesel trucks. Construction of the project would require the use of architectural coatings. Implementation of Mitigation Measure AQ-1 would minimize VOC emissions to a less-than-significant level. In addition, Mitigation Measure AQ-2 would minimize diesel emissions. Through mandatory compliance with SCAQMD rules and implementation of Mitigation Measures AQ-1 and AQ-2, construction activities are not expected to create objectionable odors affecting a substantial number of people.

Operation

Odors are considered significant if they produce a nuisance. The determination of a significant odor impact is based on creating a nuisance per SCQMD Rule 402. The SCAQMD has an established Public Nuisance Investigation Policies and Procedures to guide the SCAQMD inspectors in determining whether to issue a Notice of Violation (NOV) for a nuisance. The procedures direct SCAQMD investigators to interview complainants and observe, identify, or otherwise establish evidence odorous emissions. An NOV is issued if a “multiple complaint condition” is documented, defined as six or more complainants.

Odor complaints are expected not to be an issue with the proposed facilities. The oil production facilities that are being replaced are old with minimal emission controls at well heads, flanges, pumps, and other equipment that has seen many years of use. The proposed facility would use new equipment that must meet all of the latest SCAQMD regulations. Second, the Pumpkin Patch and LCWA sites are located at some distance from residential areas and are separated from residential areas with either other industrial development or arterials. This distance and the intervening uses help to disperse any odorous material that might accidentally be released from the facility. Finally, the facilities must comply with SCAQMD Rule 402, which requires that the facilities cannot be a nuisance and must modify operations to comply.

Mitigation Measures

The following mitigation measures are included in the Draft EIR and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure AQ-1: Construction-Period Use of Low-VOC Paints. The Applicant for the proposed project shall be responsible for the use of SCAQMD Rule 1113-compliant paints with a VOC content of 50 grams per liter or less.

Refer to Mitigation Measure AQ-2.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.2-39. These changes are identified in the form of Mitigation Measures AQ-1 and AQ-2. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.3 Biological Resources

Impact BIO-1: **The project would not have a substantial adverse effect, either directly or through habitat modifications, on southern tarplant, estuary seablite and woolly seablite, which are special-status plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.**

Construction

Southern tarplant, a special-status plant, is located within the proposed restoration and improvement areas on the Synergy Oil Field and Pumpkin Patch sites and, therefore, would likely be disturbed. Southern tarplant is also present on the City Property site in areas that would be improved by the project and likely to be disturbed. Implementation of Mitigation Measures BIO-1 and BIO-2 would reduce impacts to southern tarplant to a less-than-significant level by requiring avoidance of special-status plants, and restoration of any impacts to southern tarplant, respectively. Estuary seablite and woolly seablite are present on the Synergy Oil Field site and would be avoided.

The LCWA site does not have habitat that supports potentially-occurring special-status plants; therefore, there would not be any impacts to special-status plants associated with the portion of the proposed project that is on the LCWA site.

Operations

Following the completion of project construction activities, well plugging and abandonment or trail maintenance activities (such as the establishment and maintenance of a buffer zone between the trail and upper edge of restored habitats) could result in an adverse indirect impact to special-status plants such as the introduction or spread of weeds. In addition, improper installation or maintenance of fencing, or improper habitat restoration signage that would otherwise restrict people to the trail could result in adverse direct impacts to restored habitats and special-status plants. The direct and indirect impacts caused by these activities

could be significant, but would be reduced through implementation of Mitigation Measure BIO-2, which addresses weed management and maintenance and monitoring procedures for southern tarplant restoration areas.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure BIO-1: Avoidance of Special-Status Plants. Prior to vegetation or ground disturbance, a qualified botanist/biologist shall flag special-status plants located within 25 feet of proposed disturbance areas on the project site including southern tarplant, estuary seablite, and woolly seablite. Individual plants shall be marked or flagged for avoidance and a minimum no-disturbance buffer of 10 feet shall be established. The appropriate buffer distance shall be determined by the qualified botanist/biologist. If southern tarplant plants cannot be avoided, Mitigation Measure BIO-2 shall be implemented.

Mitigation Measure BIO-2: Re-establish Southern Tarplant on Synergy Oil Field, City Property, and Pumpkin Patch Sites. Prior to any disturbance to special-status plants, a Southern Tarplant Restoration Plan shall be prepared and approved by CDFW. At a minimum, the Restoration Plan shall include the following:

- A map showing the areas to be restored following temporary impacts
- Weed management procedures to prevent introduction of invasive plant species on site prior to and during construction, and during maintenance
- Seed collection protocol
- Seed dispersal protocol
- Performance standards for the areas to be re-established
- Maintenance and monitoring procedures for the areas to be re-established
- Adaptive management strategies
- Reporting requirements

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.3-58 and 3.3-59. These changes are identified in the form of Mitigation Measures BIO-1 and BIO-2. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Impact BIO-2: The project would not have a substantial adverse effect, either directly or through habitat modifications, on any special-status wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Construction

Synergy Oil Field Site

Mudflat Tiger Beetle, Wandering Skipper, Sandy Beach Tiger Beetle, Senile Tiger Beetle, Western Beach Tiger Beetle, and Western Tidal-Flat Tiger Beetle

Grading associated with northern area restoration activities would result in direct temporary impacts to habitat for these species; however, given the limited area of impact and the extensive area of suitable habitat that would be preserved in Steamshovel Slough and other portions of the site, the proposed impacts to these species and their preferred habitat would not cause the local populations to drop below self-sustainable levels. Impacts would be less than significant following the implementation of Mitigation Measure BIO-3, which would require biological monitoring and avoidance or relocation of special-status invertebrates.

Pacific Green Sea Turtle

The westernmost portion of Steamshovel Slough has been identified as potential habitat for the Pacific green sea turtle. There is no potential for project activities to impact this species since there would be no impacts to Steamshovel Slough.

American Peregrine Falcon

The Synergy Oil Field site contains suitable foraging habitat for the peregrine falcon. Grading and restoration activities associated would be temporary and may temporarily prevent American peregrine falcons from foraging on the project site; however, the proposed project would improve the existing habitat conditions following the completion of construction and improve the long-term viability and extent of foraging habitat for this species. Therefore, impacts to peregrine falcon and its foraging habitat would be less than significant following the implementation of the proposed project.

Belding's Savannah Sparrow

Project grading and associated restoration activities within the northern area would result in potentially significant direct and indirect impacts on the Belding's savannah sparrow. Potential direct impacts include the permanent and temporary loss of vegetation used by Belding's savannah sparrow for nesting or foraging (occupied habitat); however, impacts would be less than significant with the implementation of Mitigation Measure BIO-4, which requires a minimum habitat replacement ratio of 1:1 (created:impacted) and Mitigation Measure BIO-5, which requires re-establishment of permanent and temporary impacts to sensitive natural communities.

Indirect impacts to Belding's savannah sparrow would include noise and dust generated during construction that could disrupt breeding or other essential activities during the breeding season (e.g., vocalizing to attract mates, foraging, etc.). With implementation of Mitigation Measure BIO-6 below, indirect impacts to nesting Belding's savannah sparrow would be mitigated to a less-than-significant level through avoidance of active bird nests.

The southern area does not support suitable breeding or foraging habitat for Belding's savannah sparrow; however, potential indirect impacts to the species during construction activities could disrupt breeding behavior, which would be mitigated to a level of less than significant with implementation of Mitigation Measure BIO-6 through avoidance of active bird nests.

Burrowing Owl

Potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. In accordance with Mitigation Measure BIO-7, potential impacts on burrowing owl would be less than significant through pre-construction surveys and specific avoidance measures.

Ridgway's Rail

Potential direct impacts could occur during the northern area activities should a Ridgway's rail occupy the site. In addition, indirect impacts on Ridgway's rail could occur through disruption of nesting or other essential behaviors from construction noise and dust. Potential impacts on light-footed clapper rail would be avoided and minimized through pre-construction nesting bird surveys and avoidance as identified in Mitigation Measure BIO-6.

California Least Tern, Merlin

Limited grading of the berm that demarcates the limits of Steamshovel Slough exhibits potential for affecting foraging activities for brief periods; however, given that expansive areas of foraging areas both on site and off site are available, such short-term and localized impacts would not be considered significant. Southern area activities exhibit no potential for impacts on foraging by Merlins.

Western Snowy Plover

Grading associated with northern area restoration activities would temporarily remove potential foraging habitat; however, given the limited area of impact and the extensive area of suitable habitat preserved, potential habitat impacts would be less than significant.

White-Tailed Kite and Northern Harrier (Nesting)

Grading or other restoration activities associated with northern or southern area activities could result in significant impacts on the white-tailed kite and/or northern harriers if these species were found to be nesting on site. Potential nesting impacts would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Nesting Birds and Migratory Bird Treaty Act Considerations

Each of the four individual sites contains vegetation, including trees, shrubs, and other low-growing vegetation that have the potential to support nesting birds. Impacts to migratory and resident nesting avian species are prohibited under the Migratory Bird Treaty Act (MBTA) and provisions of the California Fish and Game Code. Potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

South Coast Marsh Vole and Southern California Salt Marsh Shrew

Grading to remove portions of the berm during northern area restoration activities exhibits potential for limited impacts on this species; however, given the limited area of impact and the extensive area of suitable habitat

preserved in Steamshovel Slough, potential habitat impacts would not cause this species to drop below self-sustaining levels. Restoration activities would not be expected to result in the direct loss of individuals and the implementation of the project would improve the condition and extent of this species' preferred habitat following completion of the project. Implementation of Mitigation Measure BIO-3 would ensure that these mammals would be unharmed if encountered.

City Property Site

The following species exhibit no potential for occurring on the City Property site and would not be subject to potential project impacts:

- California least tern;
- Light-footed clapper rail;
- Western snowy plover;
- Belding's savannah sparrow;
- Mudflat tiger beetle;
- Sandy beach tiger beetle;
- Senile tiger beetle;
- Western beach tiger beetle; and
- Western tidal-flat tiger beetle.

The species with potential to occur are addressed below.

Wandering Skipper

Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure could result in injury or mortality of individuals. Implementation of Mitigation Measure BIO-3 would require avoidance or relocation of these invertebrates if encountered during biological monitoring.

American Peregrine Falcon

Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure would result in a nominal disturbance to potential foraging habitat considering the amount of suitable habitat present in the immediate vicinity.

Burrowing Owl

Potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. Potential impacts on burrowing owl would be mitigated through pre-construction surveys and associated avoidance as required under Mitigation Measure BIO-7.

White-Tailed Kite and Northern Harrier (Nesting)

Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure could result in significant impacts on the white-tailed kite and/or northern harrier if these were found to be nesting on site. Potential nesting impacts would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Nesting Birds and Migratory Bird Treaty Act Considerations

As discussed for the Synergy Oil Field site, potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Pumpkin Patch Site

The species with potential to occur in the northeast lower portion of the site are addressed below.

Wandering Skipper, South Coast Marsh Vole, and Southern California Salt Marsh Shrew

There would be no direct impact to habitat for these species during construction or long-term operations. Implementation of Mitigation Measure BIO-3 would require avoidance or relocation of special-status wildlife if encountered during biological monitoring.

Burrowing Owl

Potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. Potential impacts on burrowing owl would be mitigated through pre-construction surveys and associated avoidance as required under Mitigation Measure BIO-7.

Nesting Birds and Migratory Bird Treaty Act Considerations

As discussed for the Synergy Oil Field site, potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

LCWA Site

The species with potential to occur on the LCWA site are addressed below.

Burrowing Owl

Potential impacts could occur should a burrowing owl or owls occupy the site prior to construction activities. Potential impacts on burrowing owl would be mitigated through pre-construction surveys and associated avoidance as required under Mitigation Measure BIO-7.

White-Tailed Kite

The LCWA site includes a number of trees that exhibit potential for nesting by the white-tailed kite. While nesting has not been previously observed, there is potential for this species to nest in the future. Direct impacts to nests would be considered significant; however, with implementation of Mitigation Measure BIO-8, any potential nesting impacts to white-tailed kite would be reduced to a level of less than significant.

Nesting Birds and Migratory Bird Treaty Act Considerations

As discussed for the Synergy Oil Field site, potential impacts to nesting birds and raptors would be avoided and minimized through pre-construction nesting avian surveys and avoidance as identified in Mitigation Measure BIO-6.

Operation

Following the completion of project construction activities, well plugging and abandonment or trail maintenance activities (such as the establishment and maintenance of a buffer zone between the trail and upper edge of restored habitats) could result in an adverse indirect impact to nesting avian species. Potential impacts to nesting birds and raptors during project operations would be reduced to a less-than-significant level through implementation of Mitigation Measure BIO-6; therefore, impacts would be less than significant.

In addition, the proposed office building and storage warehouse proposed at the Pumpkin Patch site will have exterior building lights that area illuminated at night that is similar to the adjacent existing office buildings to the north. The parking lot and oil facility areas may also require lighting at night. Without proper placement and/or shielding, light trespass and/or glare may result from the artificial lighting into the avoided 2-acre coastal wetland (and potentially, beyond, into the City Property site) in the northeast portion of the site. Implementation of Mitigation Measure BIO-9 would minimize light spillage to wetland habitats and wildlife.

The proposed project would not be expected to change tide and storm water levels on the project site and in its vicinity based on modeling of sea level rise scenarios; therefore, no impacts would occur to tidal marsh special-status species as a result of the interaction between the project and sea level rise.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure BIO-3: Biological Monitoring. All proposed project implementation shall occur under the supervision and direction of a qualified biologist. The biologist shall ensure maximum avoidance and minimization of impacts to wildlife and wetland vegetation during implementation of project activities on the Synergy Oil Field site, Pumpkin Patch site, and City site.

Prior to the daily start of cleanup activities and at the end of the work day, wildlife monitoring by a qualified biologist shall include inspection of any hazardous features (e.g., open trenches) that would trap, displace, injure, or kill wildlife. Prior to the end of daily cleanup activities, the biologist shall ensure all trash is properly disposed of such that it would not be accessible to wildlife.

For areas that contain suitable habitat for special-status wildlife, prior to and during all vegetation and ground-disturbing activities, a qualified biologist shall monitor work areas. If any special-status wildlife species are encountered during biological monitoring or by construction workers, work shall halt until the biologist determines appropriate actions to avoid and minimize harm to the species. California Fully-Protected species shall be avoided. Other actions may include relocation of the species for non-listed wildlife; however, relocation shall not be allowed for any listed species without first obtaining take authorization from USFWS and/or CDFW. To the extent feasible, non-listed wildlife shall be relocated to a CDFW/USFWS-approved relocation site that contains suitable habitat adjacent to the habitat where the species is found.

Mitigation Measure BIO-4: Belding's Savannah Sparrow Breeding Habitat. Suitable breeding habitat shall be created on the Synergy Oil Field site at a minimum acreage of 1:1 (created: impacted). Suitable breeding habitat shall consist of areas dominated by pickleweed and Parish's glasswort with a minimum 60 percent cover with a hydrologic regime similar to that currently present in the northern area, with suitable slope, inundation and soil salinity. The re-establishment requirements for Belding's savannah sparrow suitable breeding habitat (dominated by pickleweed and Parish's glasswort) shall be addressed in the Restoration Plan for the Synergy Oil Field site as outlined in Mitigation Measure BIO-5.

Mitigation Measure BIO-5: Re-establish Sensitive Natural Community Vegetation Alliances Subject to Permanent and Temporary Impacts. Sensitive natural communities located on the project site include California cordgrass marsh, Parish's glasswort patches, alkali heath marsh, pickleweed mats, Emory's baccharis thickets, black willow thicket, southern coastal brackish marsh, southern coastal salt marsh, and alkali meadow.

Prior to any vegetation or ground disturbance associated with the Synergy Oil Field or City Property site, comprehensive restoration plans shall be prepared and implemented within 1 year of impacts to sensitive natural communities. The Restoration Plan for the Synergy Oil Field site will be subject to review and approval of the Interagency Review Team (IRT) led by the Corps, and evidence of the IRT's approval shall be submitted to the City prior to initiation of grading activity on the Synergy Oil Field site. The Revegetation Plan for the City Property site shall be reviewed and approved by the CCC. The plans shall include, at a minimum, the following:

- A map showing the areas to be restored following permanent and temporary impacts.
- Identify specific restoration actions (e.g., revegetation requirements, removal of non-native plants) to be implemented during restoration.
- Quantity and quality of vegetation communities to be restored on site. Permanent impacts shall be restored at a minimum of 2:1 and temporary impacts restored at 1:1. The amount and extent of restoration shall be identified and determined based on habitat quality prior to implementation of the Restoration Plan and the initiation of any vegetation or ground disturbance.
- Plant palette for each Sensitive Natural Communities subject to re-establishment.
- Specific measurable performance standards for the areas to be re-established to evaluate habitat development, species composition and ecosystem functions.
- A timeline for implementation (within 1 year of impacts to sensitive natural communities).
- Provide specific protocols for monitoring, including sample design (e.g., number of replicates, locations for sample points, transects, etc.), sampling methods to be implemented, and statistical methods for analyzing the data.
- Maintenance procedures for areas to be re-established.
- Identify contingency plans (i.e., adaptive management procedures) to be implemented if specific performance goals are not met within the timeframe anticipated.
- Performance goals for the restoration that shall focus on habitat development, species composition, and ecosystem functions.
- Reporting requirements.

Mitigation Measure BIO-6: Nesting Bird and Raptor Avoidance. A qualified biologist shall identify areas where nesting habitat for birds and raptors is present. To ensure the avoidance of impacts to native nesting avian species, the following measures shall be implemented pursuant to the MBTA and California Fish and Game Code:

- Construction and maintenance activities during operations within and adjacent to known and potential avian nesting habitat shall be limited to the non-breeding season (September 1 through December 31) to the extent feasible. If construction or maintenance activities will occur during the avian nesting season (generally March 1 through August 31 for passerines and January 1 through August 31 for raptors), a qualified biologist shall conduct pre-construction nesting avian surveys within 5 days of the initiation of construction to determine the presence or absence of active nests. If a lapse in work of 5 days or longer occurs, another survey shall be conducted prior to work being reinitiated. Surveys shall include any potential habitat, including trees,

shrubs, and on the ground, or on nearby structures that might be impacted by construction or maintenance activities that may cause nest destruction or abandonment, such as vegetation or weed removal, earth work, and vector control actions.

- If active nests are observed, an avoidance buffer shall be demarcated with exclusion fencing and shall be maintained until the qualified biologist determines that the young have fledged. Fence stakes designed with bolt holes shall be plugged with bolts or other materials to avoid entrapping birds. The initial avoidance buffer(s) shall extend a minimum of 500 feet in all directions for raptors and listed passerines such as Belding's savannah sparrow and Ridgway's rail, and 300 feet in all directions for all other native passerines. A reduced buffer may be implemented at the discretion of the biologist for non-listed passerines based on such factors as species-tolerance to human presence, location of the nest, and the timing of nest construction, such as whether the nest was constructed after construction is initiated; however, for raptors and listed passerines, the biologist shall obtain approval from USFWS and/or CDFW prior to allowing work to commence within the 500-foot buffer.

Mitigation Measure BIO-7: Habitat Assessment and Pre-Construction Surveys for Burrowing Owl. A qualified biologist shall conduct a pre-construction burrowing owl survey of the project site prior to construction activities. If burrowing owls are detected, a Burrowing Owl Management Plan shall be prepared and approved by CDFW prior to commencement of construction. The Burrowing Owl Management Plan shall be prepared in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and shall address specific minimization and avoidance measures for burrowing owls, and measures to protect occupied habitat, such as avoidance and revegetation.

Mitigation Measure BIO-8: Avoidance of White-Tailed Kite Nesting. Remove all trees on the site outside the white-tailed kite nesting season (February 1 through June 30). If it is not possible to remove trees during the non-breeding season, a qualified biologist shall conduct a survey no more than 5 days prior to tree removal to document the absence of nests. If active nests are detected, they shall be avoided and a 500-foot no-disturbance buffer established (or reduced as specified in BIO-6). The qualified biologist shall monitor the site weekly until the nestlings have fledged and are no longer dependent on the nest.

Mitigation Measure BIO-9: Minimization of Light Spillage. A Project Lighting Plan shall be designed to minimize light trespass and glare into the avoided wetland habitat in the northeast portion of the site. Artificial lights shall be directed away from or shielded to prevent spillage into the avoided wetland habitat.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.3-66 through 3.3-68. These changes are identified in the form of Mitigation Measures BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, and BIO-9. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Impact BIO-3: The project would not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Construction

Synergy Oil Field Site

Northern Area

Sensitive habitats that would be temporarily impacted include alkali heath marsh, California cordgrass marsh, Parish's glasswort patches, and pickleweed mats. All temporary impacts to these sensitive habitats associated with grading, berm installation, overlook terrace fill, berm/road removal, and sidewalk grading total 3.80 acres (5 percent of the entire northern area) and would be considered temporary given that these areas would be restored to coastal salt marsh, transitional wetland, or other native habitat comprising a total of 61.32 acres of coastal salt marsh enhancement, rehabilitation or reestablishment as part of the northern area restoration.

Overall, there would be no net loss of habitat; rather, there would be an increase in sensitive natural communities, including wetland habitats, both in terms of areal extent and function.

Southern Area

Temporary impacts to sensitive natural communities would occur; however, they would occur within primarily disturbed areas; therefore, no permanent impacts to sensitive natural communities would occur. Temporary impacts would be mitigated with implementation of Mitigation Measure BIO-5 through re-establishment of impacted sensitive natural communities.

City Property Site

Removal of oil facilities such as aboveground pipelines and tanks would occur on the City Property site. Based on the method of removal, and the already disturbed areas that would be used to facilitate the removals, no impact to sensitive natural communities are expected; however, in the event that inadvertent and temporary impacts to sensitive natural communities occur, such potentially significant impacts would be reduced to a less-than-significant level with implementation of Mitigation Measure BIO-5.

Once the aboveground pipelines and tank are removed, and as each of the 13 oil wells from the City Property site are removed and abandoned over time, all unvegetated disturbed pads surrounding the pipelines, tank, and oil wells, as well as any area temporarily affected during the removals, will be revegetated with a native upland seed mix. The native shrub cover will enhance the appearance of the oil field, help suppress the invasion of non-native species, and provide erosion control.

Permanent impacts to sensitive natural communities associated with construction of the pipeline corridor, would occur. Permanent and temporary impacts to sensitive natural communities associated with sidewalk construction would also occur. Implementation of Mitigation Measure BIO-5 would reduce impacts to sensitive natural communities to a less-than-significant level.

Pumpkin Patch Site

There would be no direct or indirect impacts to wetland vegetation alliances or sensitive natural communities associated with work on the Pumpkin Patch site.

LCWA Site

The LCWA site does not contain any sensitive natural communities. Construction at the LCWA site would result in direct impacts to disturbed/developed areas, mulefat scrub, annual non-native grassland, and ornamental vegetation. Therefore, no impacts to sensitive natural communities would occur.

Operation

As part of the proposed project, 39 oil wells from the Synergy Oil Field, one well from Pumpkin Patch site, 13 oil wells from the City Property site, and one well from Pumpkin Patch site would be removed and abandoned over a 20- to 40-year period. Based on the guidelines set forth for removal by DOGGR and the already disturbed areas that surround the wells that would be used to facilitate the removals, impacts to sensitive natural communities are not anticipated. Further, on the Pumpkin Patch site, a permanent fence or wall would be installed along the 100-foot setback to prevent indirect impacts to sensitive natural communities (i.e., *Frankenia salina* Herbaceous Alliance [Alkali heath marsh]) from occurring during the operational phase of the project; therefore, impacts would be less than significant.

Mitigation Measure

The following mitigation measure is included in the Draft EIR and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure BIO-5.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.3-74. This change is identified in the form of mitigation measure BIO-5. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact BIO-4: The project would not have a substantial adverse effect on federally or state protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Construction

Direct impacts to jurisdictional waters and wetlands would occur on the Synergy Oil Field site and are described below. On the Pumpkin Patch site, all jurisdictional areas within the northeast area will be avoided and set back by a minimum of 100 feet from the proposed restoration and cleanup areas. The Pumpkin Patch site also includes two seasonal depressions that the jurisdictional delineation did not identify as wetlands under the Clean Water Act or CWA and CCA; however, should this area be determined to be a CCA wetland, prior to any disturbance of this area, compliance with CCA Section 30233 would be required. No impacts to jurisdictional waters or wetlands would occur on the LCWA site since none are present. On the City Property

site, proposed project activities would consist of installation of the sidewalk and the removal of pipelines which would have direct impacts to potential jurisdictional waters and wetlands. Removal of the pipelines and other oil field infrastructure would not impact jurisdictional waters or wetlands as they are located outside of jurisdictional resources. Because the proposed project is a wetland restoration project and would result in long-term restoration and enhancement of waters of the U.S./State, no compensatory mitigation is proposed. Permits and/or approvals from the USACE, RWQCB, CDFW, and the CCC would be required for impacts to resources under their jurisdiction.

Synergy Oil Field Site

Proposed project activities on the Synergy Oil Field site would impact waters of the U.S./State, CDFW jurisdiction, and coastal wetlands subject to CCA jurisdiction during re-establishment of coastal salt marsh habitat within the northern area. All impacts to jurisdictional areas associated with tidal channel grading, seawall berm and overlook terrace installation, berm/road removal, and on-site sidewalk grading are considered to be temporary given that the areas to be disturbed as part of these activities would either be revegetated or be converted from one aquatic resource type to another where post-project functions would remain the same or increase. Sheet pile installation is accounted for as a permanent impact to jurisdiction; however, the amount of jurisdiction to be impacted by this activity is extremely limited, totaling less than one-quarter of 1 percent of the entire northern area and is necessary to account for sea level rise estimations. During construction of the sheet pile wall, the jurisdictional areas would likely be avoided based on in-field placement of the wall to position it over existing disturbed areas. No other project components would impact waters of the U.S./State. Proposed activities in the southern area and off-site areas for sidewalks within the City's right-of-way would not impact jurisdictional waters or wetlands. Impacts to jurisdictional resources would be avoided and minimized through implementation of Mitigation Measure BIO-10.

City Property Site

Construction of the sidewalks within the City right-of-way along 2nd Street would result in permanent and temporary impacts to potential wetland waters of the U.S./State and wetlands as defined by the CCA. Construction of the 40-foot-wide pipeline corridor, including widening of the adjacent access roads, would result in permanent impacts to wetland waters of the U.S./State and wetlands as defined by the CCA. There would be no impacts to potential CDFW jurisdiction associated with these activities. It is possible that some areas within the pipeline corridor could be restored following construction; however, the impacts are assumed to be permanent at this time until a detailed construction plan showing the precise layout of the pipeline is prepared. Any areas that are inadvertently or temporarily disturbed would be revegetated immediately upon completion of work. Impacts to jurisdictional resources would be avoided and minimized through implementation of Mitigation Measure BIO-10.

Operation

Impacts to jurisdictional wetlands or waters are not anticipated as a result of well abandonment and removal; however, in the event that inadvertent and temporary impacts to jurisdictional wetlands or waters occur, implementation of Mitigation Measure BIO-10 would reduce potentially significant impacts to a less-than-significant level. Any loss of wetland habitat function would be a significant impact and Mitigation Measure BIO-11 would require demonstration of no net loss of aquatic resource functions and demonstrate a substantial increase in wetland functions and values throughout the entire site.

By restoring tidal connection to a larger part of the site, the project could impact wetland habitats by allowing rising sea levels to enter and flood the marsh. Sea level rise modeling (M&N 2017) shows that intertidal wetland habitats would initially increase with 2 feet of sea level rise. With 5.5 feet of sea level rise, intertidal wetland habitats would decrease, according to the modeling results; however, there would still be more jurisdictional wetlands than what is currently existing on-site. Additionally, the current state estimates predict that 5.5 feet of sea level rise will not occur until the year 2100 or later.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure BIO-10: Avoid or Minimize Impacts to Aquatic Habitat. Temporary disturbance to, and permanent loss of, all aquatic habitat shall be avoided to the maximum extent feasible. All temporary staging areas and access roads, if necessary, shall be located away from aquatic habitats to the extent practicable, and aquatic habitats abutting impacted areas shall be clearly demarcated with fencing, rope, or signage to avoid inadvertent disturbance during restoration activities and operations. As detailed grading plans are prepared, they shall be designed to avoid temporary and permanent impacts to aquatic habitats to the extent practicable.

Mitigation Measure BIO-11: Post-Restoration Functional Lift Assessments of Wetland Waters of the U.S./State and Coastal Wetlands. Upon completion of restoration activities, the project shall demonstrate a no net loss of aquatic resource functions and demonstrate a substantial increase in wetland functions and values throughout the entire site. An assessment of habitat functions, such as biotic structure and hydrology, shall be conducted as part of the project's monitoring and reporting program outlined in the Final Restoration Plan for the Upper Los Cerritos Wetlands Mitigation Bank, so that these agencies can verify that the functional values have been achieved and/or provide measures that need to be implemented to meet the appropriate level of functionality.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.3-79. These changes are identified in the form of Mitigation Measures BIO-10 and BIO-11. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.4 Cultural Resources

Impact CUL-1: The project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Construction

ESA evaluated each of the three identified historic architectural resources and two identified historic-period archaeological sites for their individual eligibility for listing in the California Register and recommends that the Bixby Ranch Field Office (P-19-187657) and the Bixby No. 2 Discovery Well (ESA-LCW-2) are eligible.

The project proposes to relocate and rehabilitate the Bixby Ranch Field Office for use as a visitors center. The existing proposed preliminary Relocation and Rehabilitation Plan would not conform to the Secretary of the Interior's Standards for Rehabilitation (Standards). More specifically, under this Plan, the Bixby Ranch Field

Office would be moved from its current location and rotated 180 degrees altering its relationship with its views, spatial relationships and setting within the oil field. The proposed landscaping and addition of a tree at the southwest corner of the building interferes with the historic visual relationships of the building with the oil field. The proposed Los Cerritos Visitors Center sign and ADA ramp also detracts from the south elevation, views of which were clear and unobstructed in the circa 1928 historical photograph of the building. The Plan to rehabilitate the primary (west) elevation and south elevation in a manner consistent with the 1928 historic photograph includes the addition of a ramp, railings, and deck that are not differentiated from the historic materials of the Bixby Ranch Field Office, as the baluster guardrails would match the existing non-contributing porch railings (altered as part of the last renovation). In addition, the building's one-story massing is a character-defining feature; raising the building to protect it from sea level rise would alter the scale of the building and detract from its architectural character and design. Furthermore, without a relocation and rehabilitation plan, the building could be damaged during relocation and/or rehabilitation; a relocation and rehabilitation plan would protect the building from potential adverse impacts during relocation and provide guidelines for rehabilitation in conformance with the Standards. Because the proposed project plans to relocate and rehabilitate the Bixby Ranch Field Office, would not conform to the Standards, the project would result in a significant impact to the resource. After project completion and once all the oil facilities are removed (over a 40-year period), the Bixby Ranch Field Office would no longer retain its historical associations with the themes of Los Angeles Basin Oil Industry (1892–1945), Long Beach Oil Industry (1921–1945), and the Petroleum Property Type and property types of Petroleum Property Type and Field Office Property Type since the character-defining features of the Synergy Oil Field would be removed. Mitigation Measures CUL-1, CUL-2, CUL-3, and CUL-4 would reduce impacts to the resource identified as the Bixby Ranch Field Office to a level of less than a significant. These measures ensure that the building is properly documented in compliance with federal guidelines, and that relocation and re-use plans conform to the methodology recommended by the National Park Service (NPS) and Secretary of the Interior's Standards for Treatment of Historic Properties and other federal guidelines.

The Bixby No. 2 Discovery Well, is recommended individually eligible for listing in the California Register and local listing under Criterion 1/A. The resource retains character-defining features of an early oil well associated with the Petroleum Property Type and retains sufficient integrity to convey its historical significance. Because the project, as currently designed, proposes to remove 95 percent of oil production infrastructure, including this well, the proposed project would have significant impact on the Bixby No. 2 Discovery Well because after project completion the resource would no longer retain character-defining features or integrity to convey its historical significance; however, Mitigation Measures CUL-1, CUL-2, and CUL-4, which require retention of the well, documentation, and public interpretation, are included to reduce potential impacts to the resource identified as the Bixby No. 2 Discovery Well to a level of less than significant. After project completion with mitigation incorporated, the impact would be less than significant because the Bixby No. 2 Discovery Well would be preserved.

The project would have no indirect impacts on historical resources within the project vicinity (0.5-mile radius).

No prehistoric archaeological resources were identified, and the technical report prepared for the project (Fulton and Fulton 2017) indicates the area has a low sensitivity for buried prehistoric archaeological sites; however, there is the possibility that buried prehistoric and historic-period resources do exist in the project site and those resources could be impacted by the project. Consultation with the Gabrieleño Band of Mission Indians – Kizh Nation and the Soboba Band of Luiseño Indians, conducted as part of AB 52 and SB 18

requirements (and discussed in Section 3.16, *Tribal Cultural Resources*), indicates that both Tribes consider the area to have a high sensitivity for archaeological resources. Further, both Tribes recommended Native American monitoring of all ground-disturbing activities. If previously undocumented cultural resources are encountered, those resource could be found eligible for listing in the California Register and could be impacted by the project. Implementation of Mitigation Measures CUL-5 through CUL-7 would ensure that impacts to historical resources as defined in Section 15064.5 would be less than significant.

Operation

Once construction is complete, operation of the project is not expected to impact any archaeological resources or built environment resources that could qualify as historical resources; however, if archaeological resources that qualify as historical resources are identified during the course of operations, implementation of Mitigation Measures CUL-5 and CUL-7 would ensure that impacts to historical resources as defined in Section 15064.5 would be less than significant.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure CUL-1: Recordation. Prior to the issuance by the City of Long Beach of a grading or building permit for the relocation of the Bixby Ranch Field Office and a grading permit for the wetlands restoration work on the Synergy Oil Field, a recordation document in accordance with the Historic American Landscape Survey (HALS) and the Historic American Buildings Survey (HABS) Level II requirements shall be completed for the Bixby No. 2 Discovery Well and the Bixby Ranch Field Office, both of which are individually eligible. The HABS/HALS document shall be prepared by a qualified architectural historian or historic preservation professional. These documents shall include a historical narrative on the industrial and historical importance of the Synergy Oil Field and Seal Beach Oil Field for background information, in addition to recording the existing appearance of the Bixby Ranch Field Office and the Bixby No. 2 Discovery Well in professional large format HABS/HALS photographs. For HALS, the Bixby No. 2 Discovery Well, the property setting and contextual views shall be documented. For HABS, the exteriors of the Bixby Ranch Field Office, representative interior spaces, character-defining features, as well as the setting and contextual views shall be documented. All documentation shall be completed in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation (HABS/HALS standards). Original archivally sound copies of the report shall be submitted to the HABS/HALS collection at the Library of Congress and the archives of the South Central Coastal Information Center, California State University, Fullerton, CA. Non-archival digital copies shall be distributed to the City of Long Beach, City of Long Beach Public Library, and the Long Beach Historical Society. In addition, any existing and available design and/or as-built drawings and pertinent supporting materials such as maps and aerial photographs shall be compiled, reproduced, and incorporated into the recordation document.

Mitigation Measure CUL-2: Retention of the Bixby No. 2 Discovery Well. Prior to the issuance of a grading permit for the Synergy Oil Field site by the City of Long Beach, a plan shall be implemented by the Applicant for the retention and preservation of the Bixby No. 2 Discovery Well and sign along with a 5-foot buffer around the furthest point from the concrete pad. The plan shall define the necessary maintenance to the sign that shall be performed (see National Park Service Preservation Brief 25, "The Preservation of Historic Signs," by Michael J. Auer). The plan shall describe a path for pedestrian traffic from the visitors center to the Discovery Well that shall be developed and installed. At the Discovery Well site, a wayside sign shall be installed interpreting the Seal Beach Oil Field and the importance of

the Bixby No. 2 Discovery Well. The interpretation of the Bixby No. 2 Discovery Well shall be overseen and prepared by a qualified architectural historian or historic preservation professional. The ongoing maintenance of the Bixby No. 2 Discovery Well site shall be the responsibility of the owner of this area of the Synergy Oil Field site.

Mitigation Measure CUL-3: Historic Preservation Consultation, Preparation of a Relocation and Rehabilitation Plan, and Construction Monitoring. Prior to the issuance of a grading permit for the Synergy Oil Field site by the City of Long Beach, a Relocation and Rehabilitation Plan and plans for Construction Monitoring shall be submitted by the Applicant for review and approval. The project design for Bixby Ranch Field Office is presently conceptual and detailed architectural drawings showing the proposed rehabilitation have not been prepared. A qualified architectural historian shall provide input to the project architect to revise the design in accordance with the Standards to retain the character-defining features of the exterior and interior of the Bixby Ranch Field Office. Once the design has been finalized, the architectural historian shall prepare a Standards plan review for submittal to the City of Long Beach Planning for a Certificate of Appropriateness.

Following the approval of the Bixby Ranch Field Office project plans, a Relocation and Rehabilitation Plan (Plan) shall be developed by a qualified historic preservation consultant. The Plan shall include relocation and rehabilitation methodology recommended by the National Park Service (NPS), which are outlined in the booklet entitled "Moving Historic Buildings," by John Obed Curtis (1979). The Plan shall include an assessment of the building condition by a qualified engineer, and a shoring plan for relocation and storage, and guidelines for relocation to the final site. If temporary storage is required, the storage conditions should closely follow the recommendations of NPS Preservation Brief 31: Mothballing Historic Buildings with regard to recommendations for structural stabilization, pest control, protection against vandalism, fire, and moisture, adequate ventilation which should be applied to the building at the temporary storage location to ensure the safety of the building during storage. A periodic maintenance and monitoring plan shall also be included in the Plan and implemented during the storage period in accordance with the guidance outlined in NPS Preservation Brief 31. The Plan shall be reviewed and approved by the City prior to issuance by the City of permits to relocate the Bixby Ranch Field Office.

Upon relocation of the Bixby Ranch Field Office, any maintenance, repair, stabilization, rehabilitation, preservation, conservation, or reconstruction work performed in conjunction with the relocation of the building shall be undertaken in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Properties. The relocation and rehabilitation process shall be monitored by a qualified historic preservation consultant at key intervals to ensure conformance with the Standards and NPS guidelines. The preservation consultant shall also be available to provide technical expertise to reduce potential impacts to historical resources from unforeseen circumstances.

Lastly, a permanent metal plaque shall be affixed to the primary elevation or a marker shall be imbedded in the pavement in front of the primary elevation of the relocated Bixby Ranch Field Office, which will briefly explain where the building was originally located (original and second location) and that the building was relocated to a third location. A qualified architectural historian or historic preservation professional shall provide oversight to the design and fabrication of an interpretive plaque/marker.

Mitigation Measure CUL-4: Interpretation. Interpretation about the significant history of the Synergy Oil Field shall be placed within the Bixby Ranch Field Office (the proposed visitors center), and along the proposed walking trails. The interpretation shall use the recommendations from Mitigation Measures CUL-2 (Retention) and CUL-3 (Recordation) to interpret the history of the Los Angeles Basin Oil Industry, Long Beach Oil Industry, Seal Beach Oil Field (including the Bixby and McGrath leases), Rancho Los Alamitos Company, Synergy Oil Field, Marland Oil Company, and Continental Oil

Company. Furthermore, oral histories shall be conducted of previous employees who worked on the Synergy Oil Field or Seal Beach Oil Field, or experts with knowledge of the abovementioned themes to incorporate within the interpretive exhibit. Historical photographs, aerials, topographic maps, and newspapers shall compliment the interpretive exhibit to visually demonstrate the activities that took place on the Synergy Oil Field. A qualified architectural historian or historic preservation professional shall provide oversight to the design and installation of an interpretive program.

Mitigation Measure CUL-5: Retention of Qualified Archaeologist and Worker Training. Prior to the issuance of a grading permit for each of the four individual sites and any off-site improvements by the City of Long Beach, evidence shall be provided to the City that a qualified archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Secretary of the Interior 2008) has been retained by the City to conduct any required training, evaluation, or treatment of archaeological resources that might be encountered during implementation of the project. As part of this, prior to the start of grading, the qualified archaeologist shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel must be informed of the types of archaeological resources that may be encountered (both prehistoric and historical), and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. The Applicant must ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance. This document shall be made available to the City upon request.

Mitigation Measure CUL-6: Native American Monitoring. A Native American monitor from the Gabrieleño Band of Mission Indians—Kizh Nation, a consulting party for the project under AB 52, shall be present during all earth-moving construction activities. The Native American monitor shall be given the opportunity to participate in the cultural resources sensitivity training described in Mitigation Measure CUL-5. At least 30 days prior to issuance of grading permits by the City of Long Beach for each of the four individual sites and any off-site improvements, a Native American Monitoring Agreement (Monitoring Agreement) shall be developed between the City and the Gabrieleño Band of Mission Indians—Kizh Nation. The Monitoring Agreement shall pertain to prehistoric archaeological resources and Tribal cultural resources, respectively, and shall identify any monitoring requirements and treatment of cultural resources to meet both the requirements of CEQA and those of the Tribal representative. The Monitoring Agreement shall also address communication protocols in the event of an unanticipated discovery of cultural materials, and the roles, responsibilities, and authorities of the Native American Monitor. The Monitoring Agreement shall also detail the protocols for treatment and final disposition of any Native American cultural resources, sacred sites, and human remains discovered on the site that the Native American Monitor shall implement in consultation and coordination with the Native American Most Likely Descendant, as identified by the NAHC. In accordance with Mitigation Measure CUL-9, discussed below, discovery and treatment of human remains shall comply with State Health and Safety Code Section 7050.5 and PRC Section 5097.98.

Mitigation Measure CUL-7: Archaeological Resource and/or Tribal Cultural Resource Discovery and Treatment. In the event of the unanticipated discovery of archaeological or other cultural resources, whether discovered through Native American monitoring or not, all work activities in the area (within approximately 100 feet of the discovery) shall be halted or redirected until the discovery can be evaluated by a qualified archaeologist. Construction shall not resume until a qualified archaeologist has conferred with the City and, in the case of prehistoric archaeological resources and tribal cultural resources, the Native American monitor, on the significance of the resource. If it is determined that the discovered archaeological resource and/or tribal cultural resource is significant under CEQA, avoidance and preservation in place shall be the preferred manner of mitigation, pursuant to PRC Section 21083.2(b) and Section 21084.3. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. In the event that preservation in place is demonstrated to be infeasible

and data recovery through excavation is the only feasible mitigation available, a Treatment Plan shall be prepared and implemented by a qualified archaeologist, in consultation with the City, that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource or cultural information in the event of a tribal cultural resource. The City shall also consult with appropriate Native American representatives in determining treatment for prehistoric or Native American resources to ensure cultural values ascribed to the resources, beyond those that are scientifically important, are considered. Any evaluation and treatment shall be supervised by an individual or individuals that meet the Secretary of the Interior's Professional Qualification Standards.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.4-20 through 3.4-23. These changes are identified in the form of Mitigation Measures CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, and CUL-7. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Impact CUL-2: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

Construction

Two historic-period archaeological resources were identified within the project site, and both would be subject to disturbance as a result of project implementation. Both resources were recommended as ineligible for listing in the California Register, and for the same reason, neither qualifies as a unique archaeological resource pursuant to Section 15064.5. As discussed above, while the potential for buried archaeological resources is considered low, both the Gabrieleño Band of Mission Indians – Kizh Nation and the Soboba Band of Luiseño Indians have indicated that the area may have a high sensitivity for cultural resources. Implementation of Mitigation Measures CUL-5 through CUL-7 during construction activities would ensure that impacts to archaeological resources as defined at Section 15064.5 would be less than significant.

Operation

Once construction is complete, operation of the project is not expected to impact archaeological resources; however, if archaeological resources were identified during the course of operations, implementation of Mitigation Measures CUL-5 through CUL-7 would ensure that impacts to archaeological resources as defined at Section 15064.5 would be less than significant.

Mitigation Measures

The following mitigation measures are included in the Draft EIR and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Refer to Mitigation Measures CUL-5 through CUL-7.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.4-24. These changes

are identified in the form of Mitigation Measures CUL-5, CUL-6, and CUL-7. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Impact CUL-3: The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Construction

The results of the fossil locality search and field survey conducted during preparation of this report indicate that no paleontological resources have been found within or immediately adjacent to the project site. The project site contains Artificial Fill overlying Young Alluvial Fan and Channel Deposits, Undivided. Artificial Fill reaches a maximum depth of approximately 33 feet in the eastern half of the Pumpkin Patch site; however, the depth of Artificial Fill elsewhere in the project site is unknown. While Artificial Fill has no paleontological sensitivity, the underlying Young Alluvial Fan and Channel Deposits, Undivided have low paleontological sensitivity to a depth of 15 feet and high paleontological sensitivity below that mark. Given the sensitivity of the underlying geological deposits, there is a possibility that excavation could encounter significant paleontological resources. Disturbance of such resources would constitute a significant impact on the environment. Implementation of Mitigation Measure CUL-8 would ensure that impacts to paleontological resources are less than significant.

Operation

Once construction is complete, operation of the project does not have the potential to impact paleontological resources.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure CUL-8: Paleontological Monitoring. Prior to commencement of any grading or excavation activity on site, the Applicant shall retain a qualified paleontologist, defined as a paleontologist meeting the guidelines of the Society of Vertebrate Paleontology (SVP) (2010) and approved by the City of Long Beach. The qualified paleontologist, or a designated paleontological monitor working under the guidance of the qualified paleontologist, shall attend and participate in any preconstruction meetings and worker training (as discussed in Mitigation Measure CUL-5), and shall be on site during all excavation and other significant ground-disturbing activities that reach a depth of 15 feet or greater below the modern ground surface. This is the minimum depth at which Young Alluvial Fan and Valley Deposits, Undivided may be encountered. These deposits are considered to have low paleontological sensitivity near the top of the geologic unit (which may not necessarily correspond with the modern ground surface), and a high paleontological sensitivity greater than 15 feet below the top of the unit. In the event that paleontological resources (e.g., fossils) are unearthed during ground-disturbing activity, the paleontological monitor shall have the authority to temporarily halt or divert grading activity to allow recovery of paleontological resources. The area of discovery shall be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor shall allow grading to recommence in the area of the find. Daily field logs shall be prepared during the course of the monitoring, and upon completion of monitoring a final report shall be prepared for submittal to the City of Long Beach.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.4-24. This change is identified in the form of mitigation measure CUL-8. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact CUL-4: The project would not disturb any human remains, including those interred outside of formal cemeteries

Construction

While no known human remains have been identified in the project site as a result of the cultural resources studies, there is a possibility that ground-disturbing activities could encounter previously undocumented human remains. The discovery of human remains would require handling in accordance with PRC Section 5097.98. In the unexpected event that human remains are unearthed during construction activities, impacts would be potentially significant, and as such, mitigation would be required. With implementation of Mitigation Measure CUL-9, impacts to human remains would be less than significant.

Operation

Once construction is complete, operation of the project is not expected to impact human remains; however, if human remains are identified during the course of operations, implementation of Mitigation Measure CUL-9 would ensure that impacts to human remains are less than significant.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure CUL-9: Treatment of Human Remains. In accordance with California Health and Safety Code Section 7050.5, if human remains are found, the Los Angeles County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains (100 feet or as determined by the project archaeologist) shall occur until the procedures set forth in this measure have been implemented. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission (NAHC) within 24 hours. In accordance with California PRC Section 5097.98, the NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.4-25. This change is identified in the form of mitigation measure CUL-9. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Cumulative Impacts

Multiple projects, mostly development within an urban setting, are proposed throughout the geographic area addressed in the cumulative analysis. Cumulative impacts to cultural resources could occur if any of these projects, in conjunction with the proposed project would have impacts on resources that, when considered together, would be significant; however, the project would not significantly affect known cultural resources, including archaeological resources, historical-period built resources, or human remains. Potential impacts to the known historical-period resources in the project site would be reduced to a less than significant level with the implementation of Mitigation Measures CUL-1 through CUL-4, which require adherence to the Secretary of the Interior's Standards and the development of appropriate documentation and interpretive materials. Further, while there is the potential for impacts to unknown archaeological resources, such as those that might be discovered during ground-disturbing activities during project construction, Mitigation Measures CUL-5 through CUL-7, which provide for cultural resources sensitivity training, Native American monitoring, and treatment protocols for unanticipated discoveries, would ensure that impacts are reduced to a less than significant level. Taken together, implementation of these mitigation measures would ensure that the project would not have an impact on cultural resources. Therefore, cumulative impacts during construction would not be cumulatively considerable (less than significant).

In the event that human remains are encountered during project implementation, Mitigation Measure CUL-9 would ensure that the remains are treated in accordance with relevant state laws and that impacts would be reduced to a less than significant level. It is assumed that any other projects in the geographic scope of analysis would also follow state law. Therefore, cumulative impacts on human remains during construction would not be cumulatively considerable (less than significant).

Regarding paleontological resources, activities associated with the project do have the potential to impact paleontological resources, and the project, in conjunction with other projects in the area, could contribute to the progressive loss of paleontological resources, as-yet unrecorded fossil sites, associated geological and geographic data, and fossil bearing strata; however, excavation activities during project construction would require compliance with Mitigation Measure CUL-8, which requires monitoring of sensitive geologic deposits, and recovery and appropriate studies in the event of an unanticipated discovery. Adherence to Mitigation Measure CUL-8 would reduce impacts to paleontological resources to a less than significant level. Therefore, cumulative impacts to paleontological resources during construction would not be cumulatively considerable (less than significant).

No impacts to cultural resources are anticipated during project operations. Therefore, cumulative impacts during operations would not be cumulatively considerable (less than significant).

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the project's contribution to the significant cumulative environmental effects, which are identified and described on Draft EIR pp. 3.4-25 to 3.4-26. This change is identified in the form of mitigation measures CUL-1 through CUL-7. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.5 Geology and Soils

Impact GEO-2: The project would not expose people or structures to potential substantial adverse effects as a result of strong seismic ground shaking.

The region will likely experience a large regional earthquake within the operational life of the project. There is a potential for high-intensity groundshaking at the project site that would be associated with such an earthquake. Intense groundshaking and high ground accelerations would affect the entire area around the proposed facilities, wells, and associated infrastructure. The primary and secondary effects of groundshaking could damage structural foundations, distort or break wells or pipelines, and place people at risk of injury or death. The impact from induced seismic activity caused by oil production was analyzed above in Impact GEO-1.

Construction

Workers could be exposed to ground shaking on all four individual sites that comprise the project site; however, the construction period is short term, with most construction workers located outside of any structures.

More importantly, the structural elements of the proposed project (i.e., the structures on the Pumpkin Patch and LCWA sites, and the oil pipeline and utilities from the LCWA site through the City Property-site to the Pumpkin Patch site) would be required to undergo appropriate design-level geotechnical evaluations prior to final design and construction. Implementing the regulatory requirements in the CBC and local ordinances, and ensuring that all buildings and structures are constructed in compliance with the law is the responsibility of the project engineers and building officials. In addition, the construction of the oil wells, storage facilities, and pipeline system and utility corridor would be under the permitting, design specifications, and inspection jurisdiction of DOGGR. Similar to the CBC, the registered professionals designing and constructing the wells, pipelines, and associated infrastructure are required to comply with DOGGR regulations. Finally, the proposed project would either remove the landfilled materials at the Pumpkin Patch site and replace those materials with imported fill appropriately placed and compacted to support the proposed structures, or drive piles through the landfill materials that is to reach underlying stable units to support the building foundation. With compliance with the regulatory requirements and the implementation of geotechnical design recommendations as required by Mitigation Measure GEO-1, Implement Geotechnical Recommendations, impacts relative to seismic shaking would be reduced to a less-than-significant level with mitigation for all components of the proposed project.

Operation

Multiple structures would be constructed as part of the proposed project, including an office, warehouse, oil production wells, and associated oil production and storage facilities. Therefore, the proposed project would place people and structures in an area that could experience strong seismic ground shaking.

Non-Oil Production Structures

The project structures (e.g., buildings and associated infrastructure) to be constructed at the Pumpkin Patch and LCWA sites would be designed to withstand seismic ground shaking during their operation in compliance with the CBC and local building code regulations, and recommendations from site-specific geotechnical

investigations, thereby reducing the potential for structural damage and risks to public safety. The parking lot, berms, trail, and restored ecosystem areas would not contain structures that could become irreparably damaged and harmful to persons in the event of strong ground shaking. Finally, although the existing Synergy building to be relocated and repurposed as a visitors center and the building would not be structurally changed, the existing building would be placed on a new foundation constructed using present-day CBC standards that would improve its ability to withstand seismic shaking.

Oil Production Structures

DOGGR regulations include design specifications for the wells, pipelines, storage tanks, and containment facilities, along with routine inspections of the operations of oil and gas wells, storage tanks, pipelines, and associated infrastructure. Wells are required to have conductor casings that protect the inner well casing from seismic damage and seal off shallower depth intervals to prevent oil and produce water from entering shallower non-oil producing zones such as aquifers with beneficial uses such as drinking water. The wells, well heads, and pipelines would be constructed with pressure-sensing equipment and shutoff valves that would automatically shut off and isolate wells and pipelines should a seismic event damage wells or pipelines. The wells and well heads would be constructed in well cellars that would contain oil and produced water in the event of leaks or damage from a seismic event. The storage tanks would be constructed with leak detection equipment and within secondary containment structures. In addition, and as previously discussed, the proposed pipelines, electrical lines, and control cables that would run from the LCWA site across the City Property site and to the Pumpkin Patch site were evaluated for potential displacement or damage in the event of a seismic event. The study identified specific seismic design elements to accommodate the anticipated maximum amount of displacement and minimize the risk of damage. The required design specifications would reduce the risk of damage to the oil production wells, associated infrastructure, workers, and the environment from seismic events to a less-than-significant level.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure GEO-1 would apply to all project components.

Mitigation Measure GEO-1: Implement Geotechnical Recommendations. As recommended in the preliminary geotechnical studies prepared for project implementation on each project site, at such time the details for the following site specific improvements and their locations are finalized, a design-level geotechnical investigation shall be prepared to develop final site- and development-specific recommendations based upon the potential geologic conditions that are described and evaluated in the geotechnical studies and this EIR. Design-level geotechnical investigation shall be prepared for the following project components and shall be submitted to the City of Long Beach, Building Department and Planning Department:

- Visitors center on the Synergy Oil Field site;
- Office building and warehouse on the Pumpkin Patch site;
- All well cellars on the Pumpkin Patch and LCWA sites; and
- All tank battery and containment areas on the Pumpkin Patch and LCWA sites.

The design-level geotechnical investigations shall provide recommendations as necessary to address the geotechnical issues that were identified for each site in the EIR. In addition to compliance with the CBC, design-level measures shall be provided for the following specific geotechnical issues:

- Risks from seismic shaking of structures such as the building to be constructed on the Pumpkin Patch site shall be reduced by designing the structures to withstand the anticipated maximum level of seismic shaking, and incorporating bracing and anchoring techniques to withstand a Maximum Credible Earthquake of 7.0 magnitude.
- For those project sites that have been identified as susceptible to liquefaction, the design-level geotechnical investigations shall identify the specific measures recommended to address liquefaction potential, which could include driving piles through susceptible materials; conditioning the soils by deep soil mixing, jet or pressure grouting, or dynamic compaction techniques; or by removing the susceptible soils.
- If the landfill on the Pumpkin Patch site is not removed, any structures proposed to be placed on top of the landfill shall be stabilized one of two measures: by driving piles through unstable materials into underlying stable units or by removing the susceptible soils and replacing the materials with properly compacted-imported fill.
- For those sites on which structures may be placed in areas of expansive soils, the design-level geotechnical study shall identify whether the expansive soils should be removed and replaced with imported non-expansive fill, or with proper mixing and grading of site materials.
- The Applicant shall provide the design-level geotechnical investigations along with the plans, specifications, grading plans, and building plans to the City for review as a condition of approval to acquire the necessary grading and building permits.
- Implementation by the Applicant of the recommendations in the design-level geotechnical investigations will mitigate geotechnical hazards to a level of less than significant.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described in the Final EIR on pp. 3.5-33 and 3.5-34. This change is identified in the form of mitigation measure GEO-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact GEO-3: The project would not expose people or structures to potential substantial adverse effects as a result of seismic-related ground failure, including liquefaction.

Construction and Operation

All four individual sites that comprise the project site are located in areas that are susceptible to liquefaction; thus, liquefaction could damage structures during construction or operations, and place the safety of workers or the public at risk; however, as discussed above in Impact GEO-2, project structures would be designed to withstand seismic ground shaking and seismic-related ground failures in accordance with the CBC, DOGGR, and local building code regulations and recommendations from site-specific geotechnical investigations, thereby reducing the potential for structural damage and risks to workers and public safety. This would include the new foundation that the existing Synergy office building would be placed on and repurposed as a visitors center. The required geotechnical investigations would provide design recommendations to reduce the risk of damage from seismic-induced liquefaction in accordance with these standards and regulations. The parking

lot, berms, trail, and restored ecosystem areas would not contain structures that could become irreparably damaged and harmful to persons in the event of ground shaking but would also be designed in accordance with regulatory requirements. As discussed above, the geotechnical investigations would include recommendations to address geotechnical issues, including liquefaction. With implementation of standard engineering practices and standard construction methods, compliance with CBC, DOGGR, and local regulations for conducting geotechnical investigations, and the implementation of the design recommendations from the geotechnical investigations as required by Mitigation Measure GEO-1, Implement Geotechnical Recommendations, ground failure impacts such as seismic-induced liquefaction would be reduced to a less-than-significant level with mitigation for all components of the proposed project.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure GEO-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.5-35. This change is identified in the form of mitigation measure GEO-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact GEO-6: The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Construction and Operation

As discussed in Impact GEO-4, there is no identified risk for landslides or lateral spreading within the project area. All project components would be located in relatively flat to gently-sloping topography and would, therefore, have a low to no susceptibility to seismically or non-seismically induced landslides or lateral spreading. Therefore, there would be no impact related to landslides or lateral spreading.

Subsidence is commonly associated with severe, long-term withdrawal of groundwater and/or oil in excess of recharge that eventually leads to overdraft of the aquifer or production zone. This is the reason that oil production operations re-inject the groundwater from oil production back into the production zone to prevent subsidence. The proposed project would continue the current practice of returning the groundwater to the depth levels from which it was extracted, reducing the potential for subsidence (BOMP 2017c).

The geotechnical and environmental studies for the sites concluded that the Pumpkin Patch and LCWA sites would have the potential for significant collapse or subsidence due to the uncertain nature of the landfilled materials buried at the site; however, as discussed above for Impact GEO-2, the proposed structures for the Pumpkin Patch and LCWA sites would be required to comply with the CBC (see Section 3.5.3, CBC regulations), which would require the design to undergo appropriate design-level geotechnical evaluations prior to final design and construction. If necessary, for the Pumpkin Patch site, this may include removing the

landfilled materials and replacing those materials with imported fill appropriately placed and compacted to support the proposed structures as described above. With implementation of standard engineering practices and standard construction methods, compliance with CBC and local regulations for conducting geotechnical investigations, and the implementation of the design recommendations from the geotechnical investigations as required by Mitigation Measure GEO-1, Implement Geotechnical Recommendations, ground failure impacts from unstable geologic units would be reduced to a less-than-significant level with mitigation for all components of the proposed project.

As discussed above for Impact GEO-3, the design of structures would be required to undergo appropriate design-level geotechnical evaluations prior to final design and construction, which would include providing recommendations to address non-seismically induced liquefaction. With compliance with the regulatory requirements, impacts relative to non-seismically induced liquefaction would be less than significant with mitigation.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure GEO-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.5-38. This change is identified in the form of mitigation measure GEO-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact GEO-7: The project could be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property.

As previously noted, the CBC, based on the IBC and the now defunct UBC, no longer includes a Table 18-1-B. Instead, CBC Section 1803.5.3 describes the criteria for analyzing expansive soils.

As discussed in the setting, the geotechnical investigation of the alluvial materials on the Pumpkin Patch and LCWA sites concluded the materials are considered to have low to moderate expansion potential. A geotechnical investigation for expansive soils has yet not been conducted for the Synergy Oil Field but would be prepared for the design of the new foundation to which the existing office building would be relocated. A geotechnical investigation for the pipeline that would cross the City Property site was conducted to provide pipeline design criteria to enable the pipeline to accommodate movement due to seismic events.

Construction

The structures proposed under the project could be located on soils with a moderate potential for soil expansion; however, until the structures are complete, the potential for damage from expansive soils during construction would be minimal, if any, largely due to the amount of time required for expansive soils to exhibit damage. Therefore, the potential impact during construction would be considered less than significant.

Operation

The project structures (i.e., buildings, warehouse, oil storage tanks and associated infrastructure on the Pumpkin Patch and LCWA sites, the visitors building on the Synergy Oil Field site, and the oil transmission pipeline and utility corridor on the LCWA, City Owned Property, and Pumpkin Patch sites) could be located on soils with up to a moderate potential for soil expansion, which could damage structures and result in risks to people or structures if not designed appropriately; however, as discussed above for Impact GEO-2, the design of structures would be required to undergo appropriate design-level geotechnical evaluations prior to final design and construction, which would include providing recommendations to address expansive soils, if present. With implementation of standard engineering practices and standard construction methods, compliance with CBC and local regulations for conducting geotechnical investigations, and the implementation of the design recommendations from the geotechnical investigations as required by Mitigation Measure GEO-1, Implement Geotechnical Recommendations, ground failure impacts due to expansive soils would be reduced to a less-than-significant level with mitigation for all components of the proposed project.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure GEO-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.5-38. This change is identified in the form of mitigation measure GEO-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Cumulative Impacts

Construction activities have the potential to cause soil erosion and loss of topsoil. If cumulative projects were constructed at the same time, the erosion effects could be cumulatively significant if appropriate measure are not taken; however, the state Construction General Permit and the Long Beach Storm Water Management Program would require each cumulative project to prepare and implement a SWPPP. The SWPPPs would describe BMPs to control runoff and prevent erosion for each project. Through compliance with the Construction General Permit, the potential for erosion impacts would be reduced to less than significant levels. The Construction General Permit has been developed to address cumulative conditions arising from construction throughout the state, and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. For example, two adjacent construction sites would each be required to implement BMPs to reduce and control the release of sediment and/or other pollutants in any runoff leaving their respective sites, including from erosion. The runoff water from both sites would be required to achieve the same action levels, measured as a maximum amount of sediment or pollutant allowed per unit volume of runoff water. Thus, even if the runoff waters were to combine after leaving the sites, the sediments and/or pollutants in the combined runoff would still be at concentrations below action levels and would not be cumulatively considerable (less than significant). Similarly, the impacts of the proposed project combined with other cumulative projects within the region would not cause a significant

cumulative impact related to soil erosion and the proposed action's contribution to cumulative impacts on soil erosion would not be cumulatively considerable (less than significant).

Until the construction of structures has been completed, there would be no impacts from seismic events (e.g., fault rupture, seismic shaking, seismic-induced ground failures such as liquefaction, lateral spreading, or landslides) or non-seismically induced ground failures (e.g., landslides, lateral spreading, subsidence, liquefaction, collapse, or expansive soil) due largely to the relatively short period that construction would take place and the likelihood of a seismic event occurring at that time. Therefore, the cumulative impacts during construction would not be cumulatively considerable (less than significant).

Impacts from seismic events (e.g., fault rupture, seismic shaking, seismically induced ground failures such as liquefaction, lateral spreading, or landslides) or non-seismically induced ground failures (e.g., landslides, lateral spreading, subsidence, liquefaction, collapse, or expansive soil) tend to be confined to each given site due to varying conditions and distance to epicenter. In addition, each cumulative project would also be required to comply with the requirements of the CBC and local building codes, which would require geotechnical investigations to identify potential geotechnical issues and provide recommendations to reduce or eliminate the risks. Each cumulative project would be required to conduct geotechnical investigations and develop recommendations to address geotechnical hazards. With compliance with applicable regulations and the implementation of mitigation measures such as Mitigation Measure GEO-1, Implement Geotechnical Recommendations, the cumulative impacts would be reduced and would not be cumulatively considerable (less than significant).

Upon completion of the proposed project and any nearby cumulative projects, each project would be required to comply with the Long Beach MS4 Permit, Long Beach LID Manual, and various sections of the LBMC, all of which contain requirements to control surface water runoff and erosion. Similar to the discussion above of how SWPPPs would control runoff and prevent erosion for cumulative construction impacts, because each cumulative project would be required to comply with the same regulations and to the same action levels, the impacts would not be cumulatively considerable (less than significant with mitigation).

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the project's contribution to the significant cumulative environmental effects, which are identified and described on Draft EIR pp. 3.5-39 to 3.5-40. This change is identified in the form of mitigation measure GEO-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

2.4.6 Greenhouse Gas Emissions

Impact GHG-1: The proposed project would generate GHG emissions, either directly or indirectly, but would not result in a significant impact on the environment.

Emissions Calculations

Construction

Construction of the proposed project would generate GHG emissions from a variety of sources. First, GHG emissions would be generated during construction of the proposed projects in the project area. Once fully

operational, the proposed projects' operations would generate direct GHG emissions from mobile sources (i.e., worker commute trips and periodic facility maintenance visits). Indirect source emissions associated with operation of the proposed project would be generated from electrical consumption to power facilities and cars traveling to and from the visitors center on the Synergy Oil Field site.

Operations

For the Pumpkin Patch site emission sources include cars and trucks going to and from the site, natural gas for space heating, a diesel-powered drilling rig, and other miscellaneous sources. The site would not normally consume electricity from the public grid, but rather electricity would be generated by turbines at the LCWA site. Additional drilling rigs would be in operation on a regular basis at both the Pumpkin Patch and LCWA sites, but would be electric (not diesel powered). Also at both the Pumpkin Patch and LCWA sites would be diesel-powered workover drilling rigs. Oil-containing tanks would be permitted through SCAQMD and equipped with BACT (best available control technology). Tanks at both Pumpkin Patch and LCWA sites would be fixed-roof gas blanket design, which eliminates the direct emissions from tanks. At the LCWA site there would be four gas turbine generator sets to convert natural gas from the wells to electricity. Currently, it is envisioned that these generators would provide all of the electricity needed at the Pumpkin Patch and LCWA sites most of the time. Occasionally, additional power would need to be drawn from the Southern California Energy (SCE) grid. At the visitors center on the Synergy Oil Field site, emissions would be generated by electric consumption for lighting and natural gas consumption for space heating. Emissions from motor vehicles would be associated with cars traveling to and from the visitors center. Recurrent painting of the facilities at all of the individual sites would also contribute to the emissions.

Street trees may be removed or trimmed in accordance with the City of Long Beach's Tree Maintenance Policy and with the appropriate permits from the City of Long Beach Department of Public Works. The potential removal of street trees may result in less carbon sequestration on the site if the trees are actively growing and accumulating a net positive biomass; however, a loss of actively growing street trees would be offset by revegetation from implementation of the wetlands habitat restoration project, which would reestablish carbon sinks and the net effect on carbon sequestration would be little to no change (or potentially positive carbon sequestration if there is substantial revegetation of the wetlands that more than offsets the removal of street trees) and would not affect the project's overall GHG emissions inventory.

The turbines would generate the overwhelming majority of the GHG emissions. The total project GHG emissions, inclusive of the GHG emissions from the turbines, would exceed 10,000 MTCO_{2e}/year.

The turbine emissions would be substantially lower than would otherwise be the case if all electricity were to be provided by SCE. If the project did not invest in turbines, the use of turbine fuel (i.e., natural gas) elsewhere, via the regional natural gas grid, could more than double the project's GHG emissions. Also, the investment in cogeneration design/equipment for the turbines. helped to reduce GHG emissions.

Total Emissions

Total project emissions would be reduced over time as the existing oil field operations³ are gradually phased out. The existing oil field well sites would be phased out over a 40-year period, starting upon the completion and occupation of the new office building and warehouse on the Pumpkin Patch site. The emissions associated

³ Based on the Greenhouse Gas Assessment by Greve & Associates, existing operations generate 22,211 TCO_{2e}/year (Greve & Associates 2017).

with the assumed baseline oil operations would be reduced by 75 percent once building permits are obtained for the office building on the Pumpkin Patch site. Over the next 20 years, half of the existing 53 wells would be plugged and abandoned. This represents an 87.5 percent reduction from the assumed baseline emission levels. By year 40, all wells would be plugged and abandoned, which represents a 100 percent reduction of the baseline emissions.

Under CEQA, the GHG emission impact of a project is based on the incremental or net change in emissions compared to the existing physical conditions in the affected area as they exist at the time the notice of preparation is published (refer to *CEQA Guidelines* Section 15126.2). The net total project GHG emissions, inclusive of the GHG emissions from the turbines and the reduction of the existing GHG emissions from the plugging and abandonment of the existing wells would exceed 10,000 MTCO₂e/year. As result, impacts would be considered significant.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure GHG-1: Cap-and-Trade Program. The project shall comply with the Cap-and-Trade Program as administered by CARB for covered sources. In accordance with the Cap-and-Trade Program, the project shall retire GHG allowances or offsets equal to the project's GHG emissions for covered sources. Retiring the GHG allowances or offsets means the project would acquire them through a number of means carefully controlled by CARB, including obtaining allowances and offsets in CARB-controlled auctions with variable and increasing cost, according to projections and decreasing supply. The project shall also comply with all applicable and required reporting requirements and GHG reduction and trading requirements. The project shall also comply with all applicable Cap-and-Trade regulations as they continue to evolve, such as revisions to the Climate Change Scoping Plan, and become adopted by the California Legislature and/or through CARB's rulemaking process.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.6-21. This change is identified in the form of mitigation measure GHG-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact GHG-2: The proposed project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

HSC Division 25.5 established statewide targets for reducing the State's GHG emissions. The implementing tools of the law (e.g., CARB's *Climate Change Scoping Plan*) are clear that the reductions are not expected to occur uniformly from all sources or sectors. CARB has established strategies for reducing emissions from various sectors including transportation, energy, and stationary sources. CARB has outlined a number of potential strategies for achieving the 2030 reduction target of 40 percent below 1990 levels, including continuation of Cap-and-Trade, sourcing 50 percent or more of the state's electricity by 2030, reducing petroleum use in cars and trucks, and reducing the carbon content of transportation fuels. The proposed project would comply with these future regulations, as promulgated by the USEPA, CARB, CEC, or other agency.

Cap-and-Trade

As required per Mitigation Measure GHG-1, the project would be designed to incorporate efficient technologies and would be consistent with strategies to minimize GHG emissions from stationary sources. Compliance with the Cap-and-Trade Program would ensure facility emissions would be reduced as required by CARB and HSC Division 25.5. The project would contribute GHG emissions as an Electricity Self-Generation entity that is subject to the Cap-and-Trade Program. As such, emissions from the project would be reduced on a sector-wide basis in accordance with the GHG reduction targets of HSC Division 25.5 and future updates by CARB to the Climate Change Scoping Plan and the Cap-and-Trade Program. Currently, the California Cap-and-Trade Program is effective through 2020. CARB's 2017 Climate Change Scoping Plan Update details the "Proposed Scoping Plan Scenario" (proposed scenario) recommending the optimal path to meeting the GHG reduction target represented by SB 32 while providing the widest range of environmental and economic benefits. The proposed scenario includes extending the Cap-and-Trade Program beyond 2020. Under the proposed scenario, the project would continue to be subject to a Cap-and-Trade program, and thus would be consistent with CARB's Scoping Plan.

Stationary Source Best Available Control Technology

The project would include cogeneration and comply with BACT standards for the turbines, comply with applicable SCAQMD rules and regulations (refer to Section 3.2, *Air Quality*, for a list of SCAQMD rules and regulations applicable to the project), and include microgrid system and solar photovoltaic modules to provide efficient energy for the facilities including drilling rigs and supporting equipment, pumps, two electric vehicle charging stations, and other equipment, the project would not conflict with applicable regulations to reduce GHG emissions.

Construction and Mobile Source Emissions

The proposed project would utilize construction contractors that would be in compliance with regulations including the USEPA Heavy Duty Vehicle Greenhouse Gas Regulation and the CARB ACTM that limits heavy-duty diesel motor vehicle idling. Furthermore, the project would accelerate the use of cleaner construction equipment as specified in Mitigation Measures AQ-2 and AQ-3, which require the use of equipment certified to the Tier IV emission controls. Implementation of these measures would ensure that fuel-efficient equipment would be used, which would reduce emissions compared to fleet average equipment. Additionally, as the project is an industrial use, GHG emissions associated with mobile sources would only occur from periodic vehicle trips by workers for inspection and maintenance purposes and visitors to the visitors center, which would not generate substantial emissions. Nonetheless, workers and visitors to the site would utilize vehicles that comply with State motor vehicle emissions standards. Therefore, the project would not conflict with applicable regulations to reduce GHG emissions.

Conclusion

CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with the California Cap-and-Trade Program or other regulatory schemes to reduce GHG emissions.

Given that the project would generate GHG emissions consistent with applicable reduction plans and policies with implementation of Mitigation Measure GHG-1, and given that GHG emission impacts are cumulative in

nature, the project's incremental contribution to significant GHG emissions would be less than cumulatively considerable with mitigation, and impacts would be less than significant with mitigation.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure GHG-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.6-24. This change is identified in the form of mitigation measure GHG-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Cumulative Impacts

Given that the project would generate GHG emissions consistent with applicable reduction plans and policies with implementation of Mitigation Measure GHG-1, and given that GHG emission impacts are cumulative in nature, the project's incremental contribution to significant GHG emissions would be less than cumulatively considerable with mitigation, and impacts would be less than significant with mitigation.

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the project's contribution to the significant cumulative environmental effects, which are identified and described on Draft EIR pp. 3.6-23 to 3.6-24. This change is identified in the form of mitigation measure GHG-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

2.4.7 Hazards and Hazardous Materials

Impact HAZ-3: The project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

Construction

All four individual sites are listed on one or more hazardous materials lists for the presence of active, idle, or plugged oil wells; historical releases of petroleum or PCBs, and/or the presence of landfill materials. The construction activities could encounter hazardous materials associated with these issues, exposing workers or the environment to hazardous materials.

Contaminated Soil

Soil disturbance during construction on the Synergy Oil Field, City Property, and LCWA sites could encounter or further disperse residual contamination in soil and expose construction workers and the environment to

hazardous materials. Potential impacts related to soil contamination during demolition and construction on the Synergy Oil Field and City Property sites is analyzed above in Impact HAZ-1. Potential impacts relative to the LCWA site are discussed below.

Based on the results of previous site investigations on the LCWA site, increased concentrations of arsenic, vanadium, lead, and nickel were identified in two locations, and additional soil sampling was conducted at two sites in the central portion of the project site.

Based on the absence of regulatory “actionable” concentrations of arsenic, lead, nickel and vanadium collected from “step-out” samples proximal to prior sample locations, the elevated results from previous investigations are determined to be an anomaly. Additionally, prior soil sampling (AEC 2004) conducted at bracketed depths around the samples exhibiting these anomalous results were within what can be considered normal “background” range. No further investigation and/or remediation is required, and no impacts are anticipated.

Landfill Materials

The Pumpkin Patch site has a buried closed landfill. The landfill materials would be located below the proposed location of the oil processing facility. Depending on the results of ongoing testing for contaminants, the landfill materials may need to be removed. If removed, there is a potential for hazardous materials to be encountered, which could expose workers and the environment to hazardous materials. Such risks could occur during excavation or drilling, stockpiling, handling, or transportation of soils or landfilled materials that have been contaminated by hazardous materials.

Impacts resulting from the potential release of or exposure to hazardous materials in soil, landfilled materials, and/or groundwater would be reduced to a less-than-significant level with implementation of Mitigation Measures HAZ-1, Health and Safety Plan, and HAZ-2, Soil, Landfill Materials, and Groundwater Management Plan. With implementation of Mitigation Measures HAZ-1 and HAZ-2, the potential for harmful exposure to hazardous materials present in soil, landfilled materials, or groundwater during construction would be reduced to a less-than-significant level.

It may be necessary to remove some or all of the buried landfill under the Pumpkin Patch. If determined necessary, this work would consist of the following phases: (1) remove the dry trash from the site and haul to a disposal facility (transfer station or landfill) depending on the acceptance criteria of the transfer station and landfills and (2) using excavation equipment with a dredging bucket, remove wet trash so the water would be allowed to drain within the confines of the excavation. Any residual water brought to the surface would be contained for transfer to an on-site liquid retention Baker-type tank; the collected water would be sampled and subsequently disposed at an approved off-site facility. The wet trash would be allowed to drain on a rack in the excavation pit before being hauled to a disposal site.

Analytical testing of the materials to be removed would characterize the waste as hazardous (Class I), designated (Class II), or nonhazardous (Class III), and identify the appropriate disposal location. Designated and nonhazardous waste would be hauled to a Class II or III disposal facility, and hazardous waste would be hauled to a Class I facility, likely the Kettleman Hills Landfill. It is assumed that approximately 63,000 cubic yards of waste would be exported, and approximately 45,000 cubic yards of clean dirt would be imported. With compliance with regulations, and with implementation of Mitigation Measures HAZ-1 and HAZ-2, the potential for harmful exposure to hazardous materials present in soil, landfilled materials, or groundwater during removal of the landfill would be reduced to a less-than-significant level.

Operation

Once the construction activities have been completed, the hazardous materials sites issues described above would have been addressed. The only remaining potential exposure would be due to accidents involving the oil production activities, previously addressed in Impact HAZ-1.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure HAZ-1: Health and Safety Plan. The construction contractor(s) shall prepare and implement site-specific Health and Safety Plans as required by and in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. This Plan shall be submitted to the project applicant and the Long Beach Hazardous Materials Division for review prior to commencement of construction. The Health and Safety Plan shall include, but is not limited to, the following elements:

- Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site Health and Safety Plan;
- A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals;
- Specified personal protective equipment and decontamination procedures, if needed;
- Emergency procedures, including route to the nearest hospital; and
- Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered. These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release, notifying The Long Beach Hazardous Materials Division, the LARWQCB, and DOGGR, as appropriate, and retaining a qualified environmental firm to perform sampling and remediation.

Mitigation Measure HAZ-2: Soil, Landfill Materials, and Groundwater Management Plan. In support of the Health and Safety Plan described in Mitigation Measure HAZ-1, the contractor shall develop and implement a Soil, Landfilled Materials, and Groundwater Management Plan that includes a materials disposal plan specifying how the construction contractor will remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The Plan must identify protocols for soil and landfilled materials testing and disposal, identify the approved disposal site, and include written documentation that the disposal site can accept the waste. Contract specifications shall mandate full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in excavated soil or dewatering effluent.

As part of the Soil and Groundwater Management Plan, the contractor shall develop a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent), if encountered, will be handled and disposed of in a safe, appropriate and lawful manner. The Plan must identify the locations at which groundwater dewatering is likely to be required, the test methods to analyze groundwater for hazardous materials, the appropriate treatment and/or disposal methods, and approved disposal site(s), including written documentation that the disposal site can accept the waste. The

contractor may also discharge the effluent under an approved permit to a publicly owned treatment works, in accordance with any requirements the treatment works may have.

This Plan shall be submitted to the project applicant and Long Beach Hazardous Materials Division for review and approval prior to commencement of construction.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.7-35 and 3.7-36. These changes are identified in the form of Mitigation Measures HAZ-1 and HAZ-2. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.8 Noise

Impact NOI-1: The project would not result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Construction

Project construction would generate noise on site from construction activities and the operation of construction equipment.

Per the City of Long Beach Noise Ordinance Section 8.80.202, Construction Activity, project construction would be required to occur within defined hours. The City's Noise Ordinance does not establish construction noise level limits. Therefore, the project would be constructed in conformance with the City of Long Beach Noise Ordinance.

Operation

Project operation would generate off-site vehicle traffic noise from project vehicle traffic on area roadways in support of site operations, and would generate on-site noise from operating oil wells, as discussed separately below.

The City's Noise Ordinance establishes operational noise criteria of allowable noise levels for percentages of an hour over a given time of day period within a land use district. Greater noise level limits are allowed during the day (7:00 a.m. to 10:00 p.m.) as compared to the more noise-sensitive nighttime period (10:00 p.m. to 7:00 a.m.). The Synergy Oil Field, Pumpkin Patch, and City Property sites are located in land use District 1 (which is generally defined predominantly residential with other land use types also present); the LCWA site is located in District 4 (which is generally defined as predominantly industrial with other land types use also present).

Additionally, the City exempts oil and gas wells from normal well servicing, remedial, or maintenance work performed within an existing well, which does not involve drilling or redrilling and which is restricted to the hours between 7:00 a.m. and 7:00 p.m., exclusive of weekends and holidays, in residential areas.

Off-Site Traffic Noise

The project is not likely to generate a substantial number of vehicle trips; therefore, a detailed traffic study has not been prepared for the project. Assuming a worst-case estimate of approximately 200 vehicle trips per day to the Pumpkin Patch site associated with oil production and drilling activities, would result in a 0.02 Dba increase in traffic noise levels along PCH, which would be imperceptible.

Assuming a worst-case estimate of approximately 500 vehicle trips per day to the Synergy site to the visitors center, would result in a less than a 0.1 dB increase in traffic noise levels along 2nd Street, which would be imperceptible. Off-site traffic noise would not expose people to or generate noise levels in excess of the applicable noise standards.

On-Site Oil Production Operations

The Pumpkin Patch and LCWA sites would be developed with oil production facilities, which would generate noise from operational oil wells. The design for the oil production facilities is in its initial phases; therefore, the specific equipment has not yet been selected. The analysis conducted as part of the Draft EIR does not represent a final noise analysis of the proposed oil production facilities, which would be required prior to construction permits. Rather, the analysis determines whether the project would feasibly comply with the City's Noise Ordinance, as required by CEQA. Prior to the issuance of any grading permits, the City would work with the developer to ensure the proper selection during the final design of equipment and control devices (e.g., mufflers, enclosures, etc.) that meet City requirements would ensure project compliance with City noise regulations.

Pumpkin Patch Site

The Pumpkin Patch site would be developed with 50 operational oil wells, which would include the following components:

- Electric submersible pumps would be incorporated down in the wells.
- Three injection pumps plus a backup would likely be used on site.
- One electric drilling rig would also be located on site, which would utilize a façade as a noise barrier around the drilling rig to reduce drilling noise levels and improve visual impacts.
- A flare and blowdown would be located on site for emergency situations only; therefore, as emergency equipment, it is exempt from the City's Noise Ordinance (Section 8.80.250).
- An 18-foot-high masonry wall would surround the Pumpkin Patch site on three sides, and a 10-foot-high wall along the back of the site would serve as a noise barrier.

The loudness of the equipment, the distance from the site to noise sensitive receptors, and the noise barrier effect of the perimeter wall were accounted for in the calculations.

The results of the calculations indicate that the noise levels projected for oil production would be less than the ambient noise levels and would not exceed the Noise Ordinance criteria. Therefore, the noise impact from oil production operations at the Pumpkin Patch site would result in a less-than-significant impact, based on proper facility design. A mitigation measure is proposed to ensure that the facility is properly designed.

LCWA Site

The LCWA site is proposed to be developed with 70 operating oil wells, including injection pumps, gas turbines, compressor, and a drilling rig, similar to the Pumpkin Patch site. The LCWA site would be surrounded by a 10-foot-high masonry wall, which would serve as a noise barrier.

The site is relatively isolated from residential and commercial development. No sensitive species have been identified on the LCWA site; therefore, no impact to sensitive species from operational noise is anticipated. Noise levels were calculated for the residential and commercial development, including equipment noise, distance to the receptors, and the noise barrier effect of the wall. The results of the calculations

that the projected operational noise levels for the LCWA site's oil production are very low for the two locations, which are much lower than the measured ambient noise levels and noise limits of the City of Long Beach Noise Ordinance. Therefore, the noise impact from oil production operations at LCWA would result in a less-than-significant impact, based on the facility being properly designed, for which a mitigation measure is prescribed to ensure that the facility is properly designed.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure NOI-1: Prior to issuance of the permits for the drilling and drilling equipment at the Pumpkin Patch and LCWA sites, a detailed noise assessment shall be prepared to demonstrate that the resultant noise levels from oil production activities will meet the City of Long Beach Noise Ordinance limits. The operational noise assessment shall be prepared by a qualified acoustical consultant who is a Registered Engineer in the State of California. The report shall document the specific sources of noise and detail any measures, if any are required, to ensure that operational noise is maintained within the City's standards. These measures will be incorporated into the project plans. The report shall be completed and approved by the City prior to issuance of building permits. Additionally, once the sites are in operation, noise measurements should be conducted within 60 days that demonstrate both oil production sites are in compliance with the City's Noise Ordinance. If any exceedances are detected, the City shall require that noise attenuation measures, such as equipment enclosures, mufflers, etc. are implemented, and require additional noise measurements be taken to demonstrate compliance with the City's Noise Ordinance.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.11-18. This change is identified in the form of mitigation measure NOI-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact NOI-3: The project would not result in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Operation

As discussed under Impact NOI-1, project operation would generate off-site vehicle traffic noise from project vehicle traffic on area roadways in support of site operations, and would generate on-site noise from operating oil wells and production facilities, as discussed separately below.

Off-Site Traffic Noise

As discussed under Impact NOI-1, the oil production facilities and drilling operations would generate a maximum of approximately 200 trips per day, which would result in a traffic noise increase of approximately 0.02 dBA along PCH. Therefore, the increase would be imperceptible and less than the significance threshold of a 3 dB increase.

The visitors center on the Synergy Oil Field site would attract visitors to the site via 2nd Street, which in the vicinity of the site has ADT volumes of approximately 38,000 vehicles per day. Assuming a worst-case estimate of approximately 500 vehicle trips per day to the visitors center, applicable to both construction and operational activities, would result in a less than a 0.1 dB increase in traffic noise levels along 2nd Street. Therefore, the increase in traffic noise on 2nd Street due to the project would be much less than the significance threshold of a 3 dB increase.

On-Site Oil Production Operations

As discussed under Impact NOI-1, the Pumpkin Patch and LCWA sites would be developed with oil production facilities, which would generate noise from operational oil wells.

Pumpkin Patch Site

As discussed under Impact NOI-1, based on preliminary design, noise levels projected for oil production would be less than the ambient noise levels. Therefore, there would be no increase in noise level at the nearest receptor, which would be less than the significance threshold of a 3 dB increase. Therefore, the noise impact from oil production operations at the site would result in a less-than-significant impact, if the facility is properly designed; however, a mitigation measure is proposed to ensure that the facility is properly designed.

LCWA Site

As discussed under Impact NOI-1, the projected operational noise levels for the LCWA oil production and power generation would be very low at the nearest residential location, and much lower than the measured ambient noise levels. Therefore, there would be no increase in noise level at the nearest receptor, which would be less than the significance threshold of a 3 dB increase. Therefore, the noise impact from oil production operations at the site would result in a less-than-significant impact, if the facility is properly designed; however, a mitigation measure is proposed to ensure that the facility is properly designed.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure NOI-1.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.11-21. This change is identified in the form of mitigation measure NOI-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact NOI-4: The project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Construction

As described under Impact NOI-1, project construction would generate noise on site from construction activities and the operation of construction equipment, including drilling rigs, trucks, graders, bulldozers, and concrete mixers. In general, the type of equipment that would be used for construction and demolition would be similar to the equipment used for most construction projects using heavy equipment. Typical construction equipment that would be employed for this project includes graders, scrapers, front loaders, trucks, backhoes, concrete mixers, and concrete pumps. The maximum noise level (L_{max}) for most of the equipment that would be used during the construction ranges from 80 to 95 dBA at 50 feet.

Synergy Oil Field Site

At the Synergy Oil Field site, restoration activities would include grading to clear some berms and establish other berms, and constructing a sheet pile wall approximately 4,730 feet long. The grading and sheet pile driving would last approximately 4 to 6 months and occur outside of the nesting season for bird species utilizing the site. Site restoration activities would use graders, trucks, and a sheet pile driver.

The nearest noise-sensitive receptor is a mobile home park approximately 330 feet north of the nearest grading activity of the site. Restoration activities in the area, nearest to the mobile home park, could last up to 6 months. The predicted maximum and average construction noise levels at the nearest residence would be higher than ambient levels, and potential significant noise impacts would occur. Mitigation measures are proposed.

In addition to site restoration, sheet pile driving would occur as close as approximately 621 feet from the mobile home park over approximately 2 to 6 months to install the 4,730-foot barrier. Sheet pile driving can be either impact or vibratory; the vibratory method is quieter than the impact pile driving. Both methods are explained below.

At the mobile home park, the noise levels associated with vibratory pile driving would have maximum and average noise levels well above ambient conditions and would result in speech interference when the residents are outside. Therefore, vibratory sheet pile driving noise would potentially result in a significant impact. Mitigation measures are prescribed to lessen this impact.

At the mobile home park, the noise levels associated with impact pile driving would have maximum and average noise levels well above ambient conditions and would result in speech interference when the residents

are outside. Therefore, impact sheet pile driving noise would potentially be a significant impact. Mitigation measures are prescribed to lessen this impact. Since vibratory pile driving is now commonly used, and impact pile driving is significantly louder, vibratory pile driving is prescribed to be used.

In addition to mobile home park, the site restoration also considered the potential impact of construction noise on sensitive animal species, specifically special-status bird species during nesting and breeding activity. To avoid noise impacts to sensitive bird species that utilize the site, all grading and sheet pile driving activity would be conducted outside of the nesting season (March 1 to August 15), and a mitigation measure has been recommended to ensure that this is implemented. Outside of the nesting season, birds use the site for foraging mostly in the area of the Steamshovel Slough. As the Slough will not be affected during restoration activities, the birds would still be able to continue to forage on site, and this impact is not considered significant (see Draft EIR Section 3.3, *Biological Resources*, for more details).

In the southern portion of the site, due to the distance to the nearest sensitive receptors and the low level of construction anticipated and occurring during the daytime hours allowable under the City's Noise Ordinance, the construction noise impact would be less than significant for the southern portion of the site.

City Property Site

The western edge of the City Property site abuts a commercial/retail center. Commercial buildings are usually not considered noise sensitive. Well removal has the potential to increase peak noise levels on occasion. The noise impact is considered to be less than significant because the office buildings are not noise sensitive and only four wells would be removed in close proximity to the offices.

The potential impact of noise on sensitive species, specifically sensitive bird species would be similar to those described above for the Synergy site, and the same mitigation would apply (see Draft EIR Section 3.3, *Biological Resources*, for more details).

Pumpkin Patch Site

The nearest noise-sensitive area to the Pumpkin Patch site would be the residential area approximately 830 feet southwest of the site, which is exposed to vehicle traffic noise from PCH. The predicted maximum and average construction noise levels at the nearest residences would be substantially less than ambient noise levels.

LCWA Site

At the LCWA site, the nearest noise-sensitive area is the residential area approximately 1,825 feet southeast of the site, which is exposed to significant levels of traffic noise from 2nd Street and is surrounded by a soundwall. The predicted maximum and average construction noise levels at the nearest residence would be substantially less than ambient noise levels.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Mitigation Measure NOI-2: Staging Areas and Mufflers. Staging areas for construction shall be located away from existing off-site residences. All construction equipment shall use properly operating mufflers. These requirements shall be included in construction contracts.

Mitigation Measure NOI-3: Limit Grading and Pile Driving. All grading and sheet pile driving activities shall be conducted outside of the nesting season for sensitive bird species. The nesting season has been identified as extending from March 1 to August 15. (Refer to the Biological section of the EIR for more information on potential impacts to bird species and the corresponding mitigation.)

Mitigation Measure NOI-4: Prohibit Impact Sheet Pile Driving. Impact sheet pile driving should be prohibited on the Synergy Oil Field site. Only vibratory sheet pile driving shall be employed.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.11-24 and 3.11-25. These changes are identified in the form of Mitigation Measures NOI-2, NOI-3, and NOI-4. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.9 Public Services

Impact PS-1: The project would not result in the need for new or physically altered facilities in order to maintain acceptable response times for fire protection and emergency medical services.

Construction

Activities associated with demolition and construction requiring electrical power or fuel or handling oil would increase the fire risk on site and subsequent potential need for fire protection services. Construction would increase the number of persons on site, which could increase the need for emergency medical services. Construction of the proposed facilities, particularly oil-related facilities, could result in fire hazards on site. The presence of construction workers on the project site would be temporary, as the construction period for the proposed project would last approximately 4 years (for the most intense construction). Additionally, as part of Mitigation Measure PS-1, fire safety prevention training would be given to construction workers regarding activities that pose a potential fire risk, such as handling of oil and other flammable liquids and welding and cutting. Given the short construction duration and implementation of Mitigation Measure PS-1, it is not anticipated that the proposed project would substantially increase the service demand for fire protection and emergency medical services in the area.

Operation

Introduction of new structures and operations on site could increase the fire hazard potential of the area and the subsequent potential need for fire protection services. Specifically, oil production facilities and microgrid energy systems associated with the oil operations on site could increase fire hazards. More people on site could increase the need for emergency medical services.

Fire would be managed by a separate control system that interfaces with the main unit control system. The detection of combustible gas concentrations above established levels generates an alarm or a package shutdown, as appropriate. The detection of fire or excessive heat results in the immediate shutdown of the package and activation of the fire suppression system using CO₂ as a distinguishing agent.

With respect to the oil production facilities, the potential for fire due to a risk of explosion is mitigated through the use of BOPE systems on all wells. A BOPE system is a safety system used during drilling to prevent uncontrolled release of formation fluids, and allows for the shut off of flow to prevent spills and release of materials. The BOPE system would be designed to handle the maximum possible pressure expected at the wellhead.

BOPE specifications are set by DOGGR.

In addition to the BOPE on the wells, a foam system for fire suppression will be installed on the oil storage tanks to address the potential for fires involving these facilities.

The project facilities would be protected by a firewater loop fed by a Long Beach Water Department (LBWD) water main. The main firewater loop line within the site would be continuously pressurized. The system would supply water to multiple hydrants, firewater monitors and foam monitors located on the project site. Each fire hydrant would be equipped with a fire hose and nozzles. The local LBWD water main can provide adequate flow and pressure to the site with no additional need for firewater storage tank or pumps. The new office building would be provided with a sprinkler system in accordance with City requirements.

Although there will be an increase in the number of employees on site, especially during the drilling stages, the increase is not considered significant with respect to the impact on public services.

Although the proposed visitors center would increase the number of daytime visitors and the employee population on the Synergy Oil Field site, the proposed project would be required to pay the City's Fire Facilities Impact Fee as part of its building fees to compensate for anticipated impacts to fire services from its operation. Each oil barrel produced by the project would also be taxed as part of the City Proposition H, which funds fire protection services components such as salaries, worker benefits and academies. Therefore, it is not expected that the proposed project would result in the need for new or physically altered facilities to maintain acceptable response times for fire protection and emergency medical services.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Mitigation Measure PS-1: Fire Prevention and Protection Training. Prior to the start of construction activities, the Applicant shall prepare and conduct a fire prevention and protection training for all construction personnel associated with the proposed project. Topics shall include general fire prevention practices such as avoiding smoking on site as well as specific preventative measures pertaining to high-fire-risk activities including handling of oil and welding and cutting. Personal protection measures including the locations of fire extinguishers on the project site and site exit routes should also be disclosed to ensure construction worker safety in the event of a fire. The material for the training shall be obtained in consultation with the Long Beach Fire Department.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.13-8. This change is identified in the form of mitigation measure PS-1. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

2.4.10 Tribal Cultural Resources

Impact TCR-1: The project would not cause a substantial adverse change in the significance of a tribal cultural resource, as defined in CEQA PRC Section 21074(a) or (b).

Construction

The results from the search of the Sacred Lands File (SLF) at the Native American Heritage Commission (NAHC) indicated that potential tribal cultural resources have been recorded within the project area. As required by AB 52, further consultation between the City and the Gabrieleño Band of Mission Indians—Kizh Nation and the Soboba Band of Luiseño Indians—occurred. As a result of this consultation, no tribal cultural resources, as defined in both (a) and (b) of PRC Section 21074, were identified within the project area; however, both Tribes stressed the cultural resources sensitivity of the project site, and the Gabrieleño Band of Mission Indians—Kizh Nation indicated that ancestral village sites are known to have been located in the area. No tribal cultural resources as defined in PRC Section 21074(a)(1), resources determined by the lead agency in its discretion and supported by substantial evidence to be significant as defined in PRC Section 21074(a)(2), or a cultural landscape as defined in PRC Section 21074(b) have been identified as a result of the consultation. Nonetheless, because both Tribes recommended Native American monitoring of all ground-disturbing activities, the City has included Native American monitoring as a mitigation measure in Draft EIR Section 3.4, *Cultural Resources*, for the discovery of archaeological resources, and it is included here as mitigation for tribal cultural resources. With implementation of Mitigation Measures CUL-5 through CUL-7 from Section 3.4, *Cultural Resources*, project impacts to tribal cultural resources as a result of construction would be less than significant with mitigation.

Operations

No tribal cultural resources as defined at PRC Section 21074(a) and (b) have been identified as a result of the consultation conducted for the project. Project impacts as a result of operations would be less than significant.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Refer to Mitigation Measures CUL-5 and CUL-7.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.16-6. These changes are identified in the form of Mitigation Measures CUL-5 and CUL-7. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

Cumulative Impacts

Since no tribal cultural resources were identified within the project site, there would be no cumulative impacts to known tribal cultural resources; however, the Gabrieleño Band of Mission Indians—Kizh Nation has indicated that the project area is sensitive for archaeological and other resources that might be identified as

tribal cultural resources, and both the Gabrieleño and the Soboba Band of Luiseño Indians have requested Native American monitoring during project construction. While there is the potential for impacts to unknown tribal cultural resources, such as those that might be discovered during ground-disturbing activities during project construction, Mitigation Measures CUL-5 through CUL-7, which provide for cultural resources sensitivity training, Native American monitoring, and treatment protocols for unanticipated discoveries, would ensure that impacts are reduced to a less than significant level. Taken together, implementation of these mitigation measures would ensure that the project would not have an impact on tribal cultural resources. No impacts to tribal cultural resources are anticipated during project operations. Therefore, cumulative impacts during operations would not be cumulatively considerable (less than significant).

Findings

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the project's contribution to the significant cumulative environmental effects, which are identified and described on Draft EIR p. 3.16-7. This change is identified in the form of mitigation measures CUL-5 through CUL-7. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

2.4.11 Energy Consumption

Impact EN-1: The project would not result in the wasteful, inefficient, and unnecessary consumption of energy during construction, operation, and/or maintenance.

Construction

Compliance with the CARB anti-idling regulation and implementation of Mitigation Measure AQ-2 requiring the use of equipment certified to the Tier 4 emissions standards would result in fuel savings in the absence of these regulations and measures. While these regulations were originally adopted to reduce construction emissions, they would also result in energy savings from the use of more fuel-efficient engines. Construction of the project would utilize fuel efficient equipment consistent with state and federal regulations, and would comply with state measures to reduce the inefficient, wasteful, and unnecessary consumption of energy.

Electricity used during construction to provide temporary power for lighting and electronic equipment (e.g., computers, etc.) and to power certain construction equipment would generally not result in a substantial increase in on-site electricity use. Overall, construction activities would require minimal electricity consumption and would not be expected to have any adverse impact on available electricity supplies and infrastructure. Similarly, natural gas is not anticipated to be consumed in any substantial quantities during construction of the project; however, if natural-gas-powered equipment are used, it would offset (i.e., replace) the diesel-fueled equipment assumed in the analysis presented in the Draft EIR and not result in an overall change in the project's energy impacts.

In addition, the project would comply with future applicable regulatory mandates that the State Legislature and/or CARB may adopt in future years to improve heavy-duty construction efficiency and reduce fuel consumption as part of the State's mandate to reduce GHG emissions.

The project would represent a very small fraction of the energy sales from regional providers and state transportation fuel supplies.

Based on the available data, construction would utilize energy for necessary on-site activities and to transport construction materials and demolition debris to and from the site. It is reasonable to conclude that idling restrictions and the use of cleaner equipment would result in less fuel combustion and energy consumption and minimize project construction-related energy use. Therefore, construction of the project would not result in the wasteful and unnecessary consumption of energy.

Operations

Project operations would result in energy demand from worker and visitor trips, truck trips, workover drilling rigs, cranes, forklifts, and the four turbines. The four turbines (4.5 MW each; 18 MW total) with heat recovery steam generators for cogeneration would use natural gas byproduct from the oil wells to provide the majority of power for the Pumpkin Patch and LCWA facilities, which would result in substantial electricity and natural gas energy savings. The turbines would provide electricity for the electric drilling rigs at the Pumpkin Patch and LCWA sites, lighting, pumps and other operational equipment, and electric vehicle charging stations. The project would purchase a limited amount of power from SCE to provide electricity to the visitors center and, when needed to supplement turbine electricity, for the Pumpkin Patch and LCWA sites. SCE is subject to the Renewables Portfolio Standard, requiring utility providers to increase procurement from eligible renewable resources over time to 50 percent by 2030. Therefore, over time, the project's energy use will become cleaner and more efficient as SCE expands its renewables portfolio.

Compliance with the CARB anti-idling regulation and implementation of Mitigation Measure AQ-3 (refer to Section 3.2, *Air Quality*) requiring the use of drilling rigs certified to the Tier 4 emissions standards would result in fuel savings in the absence of these regulations and measures. On-road equipment and vehicles (i.e., trucks, worker vehicles, and visitor vehicles) would also be expected to require less fuel resources as more efficient trucks and vehicles that achieve greater fuel economy compared to current standards replace older model year trucks and vehicles.

The project would represent a very small fraction of the energy sales from regional providers and state transportation fuel supplies.

Mitigation Measure

The following mitigation measure was included in the Draft EIR and the Final EIR, and is applicable to the proposed project. The measure as provided includes any revisions incorporated in the Final EIR.

Refer to Mitigation Measure AQ-3.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.18-14. This change is identified in the form of mitigation measure AQ-3. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

Impact EN-3: The project would be consistent with existing energy standards, policies, and regulations.

Implementation of the project would utilize contractors that demonstrate compliance with applicable regulations governing the accelerated retiring, replacing, repowering, or retrofitting of older, less-efficient engines with newer emission-controlled models. The project would require that construction and operational equipment meet the fuel-efficient Tier 4 emissions standards (refer to Mitigation Measures AQ-2 and AQ-3). In addition, contractors would be required to comply with the anti-idling ATCM that prohibits diesel-fueled commercial vehicles greater than 10,000 pounds from idling for more than 5 minutes at any given time. While intended to reduce construction emissions, compliance with these emissions regulations would also result in efficient use of construction-related energy and the minimization or elimination of wasteful and unnecessary consumption of energy as discussed under Impact EN-1.

The four turbines (4.5 MW each; 18 MW total) would adhere to SCAQMD's BACT standards and stationary source permitting regulations established by the SCAQMD. Additionally, the office building would be subject to applicable regulations outlined by the Title 24 Building Standards Code and the CALGreen Code. The CALGreen Code includes resource, water, and design measures aimed at increasing building energy and water efficiency and decreasing waste. Implementation of such measures would increase energy efficiency at the office building and ensure consistency with building regulations.

Mitigation Measures

The following mitigation measures were included in the Draft EIR and the Final EIR, and are applicable to the proposed project. The measures as provided include any revisions incorporated in the Final EIR.

Refer to Mitigation Measures AQ-2 and AQ-3.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.18-15. This change is identified in the form of Mitigation Measure AQ-2 and AQ-3. The City of Long Beach hereby finds that implementation of this mitigation measure is feasible, and the measure is, therefore, adopted.

2.5 Findings on Significant and Unavoidable Impacts

The following summary describes the unavoidable adverse impact of the proposed project where either mitigation measures were found to be infeasible, or identified mitigation measures would not lessen impacts to a less-than-significant level.

2.5.1 Air Quality

Impact AQ-2a: The project would violate the air quality standard and contribute substantially to an existing or projected air quality violation for construction-related VOC and NO_x emissions.

Construction

Construction impacts would be short-term and limited to the period when construction activities are taking place. None of the individual phases of construction would exceed the SCAQMD regional thresholds; however, some of the phases of construction could overlap with other phases of construction. If all phases of construction occurred simultaneously, then the emissions for VOC and NO_x would exceed the thresholds. The emissions for CO, SO_x, PM₁₀, and PM_{2.5} would not be exceeded even if all of the phases of construction occurred at the same time.

The likely worst-case overlap for VOC and NO_x emissions is during a time when five construction phases are underway. The VOC emissions during this period would represent the actual worst case for the project. Mitigation Measure AQ-1 would be recommended to reduce the VOC impacts. Implementation of the VOC mitigation measures would reduce VOC impacts to a less-than-significant level. Implementation of the VOC Mitigation Measure AQ-1 would reduce VOC impacts to a less-than-significant level. The NO_x emissions during this period would total 224.5 pounds per day and represent the actual worst case for the project. Mitigation Measure AQ-2 is recommended to reduce the emissions; however, there are no reasonable and feasible measures that can reduce the emissions to below 100 pounds per day. Therefore, construction of the project would result in a significant and unavoidable regional air quality impact due to regional NO_x emissions. Mitigation measures would also be recommended to reduce the VOC impacts.

Mitigation Measures

Mitigation measures AQ-1 would reduce the short-term emissions of VOC to a level of less than significant. Mitigation Measures AQ-2 and AQ-4 would help reduce NO_x emissions, however, conservatively assuming overlapping construction phases, regional NO_x emissions for construction of the proposed project would remain significant and unavoidable.

Please refer to Mitigation Measures AQ-1, AQ-2, and AQ-4 as set forth in these Findings.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR pp. 3.2-24 and 3.2-25. These changes are identified in the form of Mitigation Measures AQ-1, AQ-2, and AQ-4. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

The City finds that there are no other mitigation measures that are feasible, taking into consideration specific economic, legal, social, technological or other factors, that would mitigate this impact to a less-than-significant level, and, further, that specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the alternatives identified in the EIR, as discussed in Section 2.6 of these Findings (Public Resources Code

Sections 21081(a)(1), (3); Guidelines Sections 15091(a)(1), (3)). As described in the Statement of Overriding Considerations, the City has determined that this impact is acceptable because specific overriding economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the proposed project outweigh its significant effects on the environment.

Impact AQ-3a: The project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) during construction.

The project area is located within the SCAB, which is considered the cumulative study area for air quality. Because the SCAB is currently classified as nonattainment area for ozone, PM₁₀, and PM_{2.5}, cumulative development consisting of the proposed project along with other reasonably foreseeable future projects in the SCAB as a whole could violate an air quality standard or contribute to an existing or projected air quality violation. Based on SCAQMD's cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants (VOC, CO, NO_x, SO_x, PM₁₀, and PM_{2.5}) that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard.

The proposed project would exceed regional significance thresholds for construction-related VOC and NO_x emission. Implementation of Mitigation Measure AQ-1 would reduce construction-related VOC emissions to a less-than-significant level. Mitigation Measure AQ-2 and AQ-4 would reduce construction-related NO_x emissions; however, the NO_x emissions would still exceed the threshold. Since Mitigation Measures AQ-2 and AQ-4 require the use of construction equipment that meet the most stringent emissions standards, there are no feasible measures to reduce the construction NO_x emissions to less than the threshold. Therefore, the short-term construction NO_x emissions would result in a cumulatively considerable net increase and impacts would be significant and unavoidable.

Mitigation Measures

Mitigation measures AQ-1 would reduce the short-term emissions of VOC to a level of less than significant. Mitigation Measure AQ-2 and AQ-4 would be aimed at reducing NO_x emissions, however, conservatively assuming overlapping construction phases, regional NO_x emissions for construction of the proposed project would be significant and unavoidable.

Refer to Mitigation Measures AQ-1, AQ-2, and AQ-4.

Finding

Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this significant environmental effect, which is identified and described on Draft EIR p. 3.2-30. These changes are identified in the form of Mitigation Measures AQ-1, AQ-2, and AQ-4. The City of Long Beach hereby finds that implementation of these mitigation measures is feasible, and the measures are, therefore, adopted.

The City finds that there are no other mitigation measures that are feasible, taking into consideration specific economic, legal, social, technological or other factors, that would mitigate this impact to a less-than-significant

level, and, further, that specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the alternatives identified in the EIR, as discussed in Section 2.6 of these Findings (Public Resources Code Sections 21081(a)(1), (3); Guidelines Sections 15091(a)(1), (3)). As described in the Statement of Overriding Considerations, the City has determined that this impact is acceptable because specific overriding economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the proposed project outweigh its significant effects on the environment.

2.6 Findings on Project Alternatives

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. As discussed above, the only impacts under the project that could not be mitigated below a level of significance are construction impacts to air quality standards and criteria pollutants. The DEIR analyzed five alternatives to the proposed project that could reduce some, if not all, of the impacts. Alternative 1 would have the potential to avoid the proposed project's significant and unavoidable construction air quality impacts.

2.6.1 Alternative 1: No Project (No Build)

CEQA Guidelines Section 15126.6(e) requires that an EIR evaluate and analyze the impacts of the "No-Project" Alternative. Under the No Project (No Build) Alternative (Alternative 1), none of the proposed project components would be constructed and implemented and existing conditions would remain unchanged. The Synergy Oil Field site would continue to operate the existing oil production facilities. The City Property site would continue to operate its existing oil production facilities concentrated in the southwestern portion and northern perimeter of the site. The Pumpkin Patch site would continue to be used seasonally for the sale of pumpkins and Christmas trees and closed to the public for the remainder of the year, and would continue to operate its one active oil well. The LCWA site would remain undeveloped and used on a temporary lease basis for equipment storage and staging under this alternative.

Finding

Under Alternative 1, none of the proposed project components would be constructed and implemented and existing conditions would remain unchanged. Therefore, Alternative 1 would avoid the proposed project's significant and unavoidable construction air quality impacts. Under Alternative 1, there would be no construction of the visitors center, new office buildings, nor the oil production facilities and microgrid with four natural gas co-generation turbines. Thus, this alternative would result in no construction emissions, eliminating the significant and unavoidable construction emission impact associated with the proposed project.

Environmental Impacts

All impacts associated with Alternative 1 would be similar or less than the proposed project because there would be no new construction or development, with the following exceptions: odors, energy consumption, sea level rise and conflicts with an applicable land use plan (SEADIP). Under Alternative 1, the existing, older equipment would continue to be used and continue to age resulting in greater potential for odorous fugitive emissions, resulting in a greater impact. Alternative 1 would not relocate the Bixby Ranch Field Office. Therefore, the threat of fault rupture, strong seismic ground shaking, or ground failure would be greater.

Alternative 1 would not make existing structures and infrastructure less susceptible to sea level rise. In addition, because this alternative fails to address existing non-conformities and land use conflicts in the existing SEADIP ordinance, it would have greater impacts than the proposed project with respect to conflicts with applicable land use plans and policies. The No Project (No Build) Alternative would not install the energy-efficient microgrid system or turbines with cogeneration. Thus, Alternative 1 would not be as energy efficient as the project and would have greater impacts with respect to energy consumption.

Ability to Achieve Project Objectives

No new development would be introduced on the project site under Alternative 1 and existing oil production and office building uses would continue. No new oil production facilities would be installed with energy-efficient technology. No visitors center, new office building, or public access trail would be constructed, and no wetlands habitat restoration would occur. As a result, none of the proposed project objectives would be achieved by Alternative 1.

Finding

Although the majority of the impacts associated with this alternative would be similar or less than the proposed project, this alternative would result in greater impacts with respect to odors, energy consumption, sea level rise, and conflicts with an applicable land use plan. In addition, this alternative would not accomplish any of the project objectives. For these reasons, the City rejects Alternative 1.

2.6.2 No Project/Development Consistent with Existing Zoning

The No Project/Development Consistent with Existing Zoning Alternative (Alternative 2) would involve no change to the existing operations on the Synergy Oil Field and City Property sites. Alternative 2 would involve development consistent with existing City zoning (SEADIP) on the Pumpkin Patch and LCWA sites. This could result in commercial development (business park, office commercial, light industrial, restaurants and hotel) on the Pumpkin Patch site and light industrial development on the LCWA site. Alternative 2 could include the construction of nearly 58,000 sf of retail and service uses (such as grocery stores, general retail, banks, personal services, etc.), along with 295 parking spaces on the Pumpkin Patch site. Under this alternative, the LCWA site could be developed with an approximately 26,900 sf of industrial warehouse/office uses and approximately 123 parking spaces. Bikeway and sidewalk improvements may be implemented adjacent to the Pumpkin Patch and LCWA sites in connection with the proposed development on those sites.

Finding

Alternative 2 would not avoid or substantially lessen the proposed project's significant and unavoidable construction air quality impacts. The following describes differences in impacts between the proposed project and Alternative 2. All other impacts not described below would be similar to the proposed project.

Environmental Impacts

Significant and unavoidable impacts associated with construction-related air quality impacts would be lessened because there would be no development on the Synergy Oil Field or City Property site; however, construction emissions under this alternative could exceed the SCAQMD significance thresholds, even after implementation of mitigation measures. Thus, air quality impacts could still be significant and unavoidable for

regional NO_x emissions even with implementation of mitigation measures, and this alternative would not reduce or avoid a significant impact of the proposed project.

Alternative 2 would not conflict with any local policies or ordinances protecting biological resources on all four sites and would not impact ESHAs on the Synergy Oil Field and City Property sites. Potential historical resources impacts associated with the relocation and rehabilitation of the building and memorialization of the Bixby No. 2 Discovery well would not occur. Alternative 2 would result in GHG emissions that would be less than the project because there would be no natural gas co-generation turbines. Alternative 2 would avoid hazards associated with the relocation of the Bixby Ranch Field Office building which includes asbestos-containing material and lead-based paint. Also, no pipeline and utility corridor would be developed on the City Property site which would avoid potential leaks in the corridor. The industrial and commercial facilities proposed under Alternative 2 could generate less hazardous materials than those associated with operation of the new proposed oil production facilities. Impacts related to land use would be less under Alternative 2 compared to those for the proposed project because development of Alternative 2 would not require an amendment to the SEADIP or oil map and the alternative would be consistent with the LCP and applicable CCA policies. In addition, development of Alternative 2 could result in lesser impacts associated with construction-related temporary noise and groundborne vibration impacts because no sheet pile driving would be required and noise impacts associated with the implementation of oil production facilities would not occur. Alternative 2 would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity because development would not be located near sensitive noise receptors. Because no new ground disturbing work is proposed on the Synergy Oil Field and City Property sites under Alternative 2, construction-related impacts to tribal cultural resources would be less than the proposed project.

Alternative 2 would not provide the aesthetic benefit of removing the existing oil production facilities and infrastructure, and the overall improvement of the Los Cerritos Wetlands complex scenic vista would not be achieved. In addition, Alternative 2 could increase the potential for lighting sources on the Pumpkin Patch and LCWA sites to impacts slightly greater than those identified for the proposed project. Alternative 2 could result in greater impacts because it could result in greater employment growth and greater vehicle trips to and from the site as compared to the project; however, growth consistent with existing land use designations would likely be within SCAG employment projects for the region, which are incorporated into the AQMP. The maximum potential regional operational emissions could be greater than the project depending on number of additional vehicle and truck trips. In addition, there would be no net reduction in operational emissions from eliminating existing site activities and implementing emission controls. Therefore, Alternative 2 could result in potentially greater net localized and TAC emission impacts compared to the project. Alternative 2 could result in greater odor impacts as compared to the project because, existing equipment at the oil production facilities would not be replaced. Under Alternative 2, the existing Bixby Ranch Field Office building would not be relocated, and would continue to operate within the Alquist-Priolo fault zone and would remain exposed to fault rupture. Alternative 2 would not include the construction of the proposed project's berm that would increase the level of flood and sea level rise protection from existing conditions at Steamshovel Slough; therefore, impacts associated with sea level rise would be greater under Alternative 2. Also, the Bixby Ranch Field Office building would not be relocated and raised to reduce impacts from sea level rise. Because Alternative 2 would fail to address existing non-conformities and land use conflicts in the existing SEADIP ordinance on the Synergy Oil Field and City Property sites, it would have greater impacts than the proposed project with respect to conflicts with applicable land use plans and policies. Alternative would limit the potential to fully access the mineral resources in the area, unlike the proposed project would provide greater

access to that area. The operational vehicular traffic associated with Alternative 2 could result in a greater increase in ambient noise levels associated with the proposed project. Development of Alternative 2 also has a greater potential to increase temporary and permanent employment. Due to the proposed commercial and industrial development, Alternative 2 could result in a greater increase in demand for public services. Because the new recreational facilities proposed by the project would not be constructed (i.e., visitors center, overlook terrace, Studebaker Trail, and sidewalk and bikeway improvements), potential visitors would be required to go elsewhere and impacts related to the recreation facilities would be greater.

Alternative 2 would only develop sidewalk and bikeway improvements on the Pumpkin Patch and LCWA sites and could require more construction activities and a longer construction period, which could result greater construction-related traffic than the proposed project. Alternative 2 could also result in greater operational traffic associated with the vehicle trips generated by commercial and industrial uses, and therefore greater impacts to the congestion management program. Due to the increase in operational vehicular trips, Alternative 2 could result in greater impacts to emergency access, transportation congestion, and traffic hazards compared to the proposed project. In addition, Alternative 2 could result in a greater long-term generation of wastewater. The proposed development under Alternative 2 could be expected to increase impervious surfaces and could generate greater amounts of runoff. Additionally, construction of new stormwater drainage facilities could be required. The intensity of commercial and industrial uses proposed under Alternative 2 could be expected to result in a greater water demand than the operation of the proposed project, but it is not anticipated to result in a determination by the wastewater treatment provider of inadequate capacity to serve the development, and greater impacts to landfill capacity. Alternative 2 would not install the energy-efficient microgrid system or turbines with cogeneration. Thus, the existing oil production facility would not be as energy efficient as the project and would have greater impacts relative to the project

Ability to Achieve Project Objectives

Alternative 2 would not change the existing operations on the Synergy Oil Field and City Property sites. Alternative 2 could add commercial development to the Pumpkin Patch site and industrial uses on the LCWA site and would include sidewalk and bikeway improvements adjacent to the Pumpkin Patch and LCWA sites, which would improve pedestrian accessibility, as stated in the Project Objectives. Alternative 2 would not upgrade or modernize oil production facilities and would not relocate oil production facilities off the Synergy Oil Field and City Property sites. Alternative 2 would not include any wetland habitat restoration. Furthermore, Alternative 2 would not include development of public access improvements including the visitors center and trail, additional or relocated oil production facilities, increased oil production efficiency, sustainable energy sources or use reduction, and the clean-up of old landfills would not be realized. Therefore, other than the improved pedestrian accessibility via upgraded sidewalks and bikeways, none of the other proposed project objectives would be achieved by Alternative 2.

Finding

Alternative 2 would not avoid or substantially lessen the project's significant and unavoidable construction air quality impacts. While some of the environmental impacts, such as greenhouse gas emissions, temporary noise increases, and use of hazardous materials may be reduced as compared to the proposed project, many of the other environmental impacts of this alternative would be similar or would be greater than the proposed project. In addition, but for sidewalk and bikeway improvements, this alternative would not accomplish any of the project objectives. For these reasons, the City rejects Alternative 2.

2.6.3 Alternative 3: Reduced Production

Reduced Production (Alternative 3) would develop the project; however, the number of new oil wells installed would be reduced on the Pumpkin Patch and LCWA sites. Given the reduction in oil production on the Pumpkin Patch and LCWA sites, the phasing duration for relocating and plugging and abandoning the existing oil wells on the Synergy Oil Field and City Property sites could be extended beyond 40 years under this alternative. The remaining project components would be implemented as a part of Alternative 3. Given the reduced production, the storage tank heights on both the Pumpkin Patch and LCWA sites would be less than 35 feet to be consistent with the current SEADIP height restrictions. The number of turbines on the LCWA site would also be reduced from four to three. The reduced number of new oil wells on the Pumpkin Patch and LCWA sites would result in the reduction of potential oil production of the project under Alternative 3.

Finding

Alternative 3 would still result in a significant and unavoidable air quality impact during construction, similar to the proposed project. The following describes differences in impacts between the proposed project and Alternative 3. All other impacts not described below would be similar to the proposed project.

Environmental Impacts

Impacts associated with greenhouse gas emissions would be reduced, but both the project and the alternative would reduce their impacts to a less-than-significant level through participation in the Cap and Trade Program.

Alternative 3 would result in less construction and operational emissions than the project given the reduced number of new oil wells; however, construction and operation of this alternative would still require mitigation to reduce emissions to below the SCAQMD significance thresholds. Construction and operational localized and TAC emissions would be less than the project; however, this project would still require mitigation to reduce health risk impacts. Alternative 3 would result in less GHG emissions than the project given that three instead of four turbines would be installed; however, Alternative 3 would be required to implement mitigation to obtain GHG allowances or offsets. Less hazardous materials would be generated than those associated with the project because there would be fewer wells than proposed for the project. Impacts associated with landfill capacity would be slightly reduced from the proposed project because less waste would be generated.

Alternative 3 would not be as energy efficient as the project and would have greater energy impacts because the plugging and abandoning of existing oil wells on the Synergy Oil Field and City Property sites could be extended beyond 40 years under this alternative (although 75 percent of the existing wells would be plugged and abandoned upon issuance of building permits). This older equipment would continue to be used for a longer period of time and continue to age, resulting in greater potential for odorous fugitive emissions. Thus, this alternative would result in slightly greater odor impacts as compared to the project due to the potential for an extended abandonment schedule.

Ability to Achieve Project Objectives

The Reduced Production Alternative would develop a reduced number of new oil wells in comparison to the proposed project and would achieve nearly all of the proposed project objectives, including wetlands habitat restoration, recreational access trails, educational opportunities, reduced oil productions on City-owned property, energy-efficient oil production operations, clean-up of old landfills, relocation of oil production wells, enhanced entry points and pedestrian walkability, reduced reliance on imported oil resources, and

sustainable energy sourcing. However, the Reduced Production Alternative would not accomplish the sixth objective because a reduction in the number of wells and turbines as proposed by this alternative would not optimize oil and gas production from the City's reserves.

Finding

Although the majority of the impacts associated with this alternative would be similar or less than the proposed project, this alternative would still result in a significant and unavoidable air quality impact during construction, similar to the proposed project. Even for those impacts for which this alternative would be less than the proposed project, all of those impacts would be mitigated to less than significant by the project. This alternative would accomplish most, but not all of the project objectives. Because this impact would not avoid or substantially reduce the significant adverse impact of the project with respect to short-term air quality impacts, and would not provide the same degree of oil operations and would therefore not optimize oil and gas production which is needed to help fund the costs of wetlands restoration which will be borne by the project, the City finds that this alternative would be less feasible as that term is defined in Public Resources Code Section 21061.1 and *CEQA Guidelines* Section 15364, than the proposed project.

2.6.4 Alternative 4: SCE Substation

Under the SCE Substation Alternative (Alternative 4), a large Southern California Edison (SCE) substation would be constructed at the LCWA site, rather than the microgrid including the turbine power generation and photovoltaic components of the proposed project. Natural gas produced as byproduct of oil extraction would not be used on site, but instead sold into the regional grid or trucked off site. The Synergy Oil Field Site, City Property, and Pumpkin Patch sites would be developed with the same project components as the proposed project. However, under Alternative 4 transmission lines would be required to provide electricity to the Pumpkin Patch site. It is possible that a second substation on the Pumpkin Patch site may also be required under this alternative. Although the project characteristics at the remaining sites would remain unchanged under this alternative, upgrades to SCE transmission lines connecting to the SCE substation on the LCWA site would be required.

Finding

Alternative 4 would still result in a significant and unavoidable air quality impact during construction, similar to the proposed project. The following describes differences in impacts between the proposed project and Alternative 4. All other impacts not described below would be similar to the proposed project.

Environmental Impacts

Alternative 4 would generate less operational localized and TAC emissions because the electricity would be generated by SCE power plants somewhere other than at the turbines on the project site. The natural gas would not be used on site, but transported elsewhere via pipeline and/or trucks and sold to some other entity to use as fuel, and would ultimately be combusted elsewhere. Therefore, the maximum potential operational localized and TAC emissions would be less than the project because there would be less localized emissions. However, this alternative would likely still require mitigation to reduce health risk impacts to a level that is less than significant.

Alternative 4 would result in greater impacts related to air quality plan, greenhouse gas emissions and energy consumption than the proposed project. Overall operational emissions would be greater under Alternative 4 because the natural gas sold into the regional grid or trucked off site would still be combusted by third parties elsewhere, and additional emissions could be generated by mobile sources if off-site trucking is required. Under Alternative 4, the project would result in greater overall GHG emissions because the natural gas sold into the regional grid or trucked off site would still be combusted by third parties. The GHG impacts of this alternative were discussed in the Greenhouse Gas Mitigation White Paper that was included in the Appendices to the Draft EIR. As described in the White Paper, if the project purchased power from SCE, SCE's generation of power to run the equipment for the project would generate between 40,058 and 53,720 MTCO₂EQ/year of GHG emissions. In addition to the emissions generated by SCE's power generation, the natural gas produced by oil production will be shipped offsite (as described above), to generate power elsewhere in the region or state. CalEEMod estimates that 90,255 MTCO₂EQ/year of GHG emissions could be generated by space heating. Therefore, if power were generated by SCE through use of the substation alternative instead of the onsite gas turbines, the total GHG emissions that might be generated would be 143,975 MTCO₂EQ/year, which would be twice as high as the emissions generated by the project.

In addition, Alternative 4 would result in reduced energy efficiency on site by not making use of the combustion of natural gas collected as part of the oil extraction process. Additional energy could be required from mobile sources if off-site trucking is required to transport the fuel to the regional grid or to a third party. Thus, impacts would be greater than the project.

Ability to Achieve Project Objectives

Alternative 4 would replace the turbine power generation, solar and microgrid components of the proposed project that would improve the project's energy efficiency with electric-generated equipment. Therefore, this alternative would not achieve the proposed project's objectives relating to improving the efficiency of oil production operations (Objective 5), developing locally sourced oil and natural gas resources using energy-efficient technology (Objective 10). This alternative would also fail to achieve the proposed project's objective to reduce energy use environmental impacts, efficiently use project-sourced natural gas, and increase project reliability/safety with a microgrid that integrates multiple on-site energy sources with high efficiency controls on energy using equipment (Objective 11). Otherwise, this alternative would accomplish all other project objectives relating to wetland habitat restoration, recreational public access, educational opportunities, relocation of oil production operations, clean-up of old landfills, and improvement of pedestrian walkability.

Finding

Although the majority of the impacts associated with this alternative would be similar to the proposed project, this alternative would still result in a significant and unavoidable air quality impacts during construction, similar to the proposed project. This alternative would also have greater impacts with respect to operational air quality, greenhouse gas emissions and energy consumption as compared to the proposed project. All other impacts associated with this alternative would be similar or less than the proposed project; however, even for those impacts for which this alternative would be less than the proposed project, all of those impacts would be mitigated to less than significant by the project. This alternative would accomplish most, but not all of the project objectives. Because this impact would not avoid or substantially reduce the significant adverse impact of the project with respect to short-term air quality impacts, and would not provide the same degree of oil operations and would therefore not optimize oil and gas production which is needed to help fund the costs of

wetlands restoration which will be borne by the project, and would be less energy efficient, the City finds that this alternative would be less feasible as that term is defined in Public Resources Code Section 21061.1 and *CEQA Guidelines* Section 15364, than the proposed project.

2.6.5 Alternative 5: Relocated Pipeline

Relocated Pipeline (Alternative 5) would relocate the aboveground pipeline and utility corridor on the City Property site; however, the remaining components of this alternative would remain the same as the proposed project.

Finding

Alternative 5 is similar to the proposed project in every regard except for the relocation of the pipeline on the City Property from the western oil service road to the eastern oil service road. With the exception of fewer impacts to sensitive natural communities and wetlands, as described in greater detail below, all impacts associated with the remaining environmental issues would be similar to impacts associated with the proposed project.

Environmental Impacts

Under Alternative 5, the aboveground pipeline and utility corridor route would result in less disturbance to existing wetlands and sensitive vegetation than identified under the proposed project. The aboveground pipeline and utility corridor route would be relocated to a wider oil service road on the eastern side of the City Property site. The eastern oil service road contains larger areas that have been previously disturbed and is lacking in vegetation as compared to the western oil service road. Relocation to the eastern oil service road would avoid freshwater/brackish wetlands and alkali meadow habitat, which would be impacted under the proposed project. Overall, there would be impacts to fewer acres of wetlands and sensitive natural communities under this alternative.

Ability to Achieve Project Objectives

Similar to the proposed project, Alternative 5 would meet all of the project objectives, in that it contains the same components as the proposed project.

Finding

The City Council finds that even though all of the impacts of the project are the same as Alternative 5, because this alternative would reduce project impacts to biological resources to a greater degree than the project, the City finds that this is the environmentally superior alternative. While the location of the pipeline is not subject to the City's Local Site Plan Review process, all proposed physical improvements would need to be approved by the California Coastal Commission (CCC through a coastal development permit (CDP). The Project is required to submit a Consolidated CDP for review by the CCC, during which the CCC may modify the proposed improvements. The CCC may also provide conditions to the project to be deemed consistent with the local coastal program.

CHAPTER 3

Statement of Overriding Considerations

3.1 Introduction

The City is the Lead Agency under CEQA for preparation, review and certification of the Final EIR for the Los Cerritos Wetlands Oil Consolidation and Restoration Project. As the Lead Agency, the City is also responsible for determining the potential environmental impacts of the proposed action and which of those impacts are significant, and which can be mitigated through imposition of mitigation measures to avoid or minimize those impacts to a level of less than significant. CEQA requires the Lead Agency to balance the benefits of a proposed action against its significant unavoidable adverse environmental impacts in determining whether or not to approve the proposed Project. In making this determination the City is guided by *CEQA Guidelines* Section 15093 which provides as follows:

- (a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposal (sic) project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."
- (b) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.
- (c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091.

In addition, Public Resources Code Section 21081(b) requires that where a public agency finds that specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in an EIR and thereby leave significant unavoidable effects, the public agency must also find that overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects of the project.

Pursuant to Public Resources Code Section 21081(b) and *CEQA Guidelines* Section 15093, the City has balanced the benefits of the proposed Project against the following unavoidable adverse impacts associated with the proposed Project and has adopted all feasible mitigation measures with respect to these impacts. The City also has examined alternatives to the proposed Project, none of which both meet the Project objectives and is environmentally preferable to the proposed Project for the reasons discussed in the Findings and Facts in Support of Findings.

The City Council of the City of Long Beach, the Lead Agency for this Project, having reviewed the Final EIR, and reviewed all written materials within the City's public record and heard all oral testimony presented at public hearings, adopts this Statement of Overriding Considerations, which has balanced the benefits of the Project against its significant unavoidable adverse environmental impacts in reaching its decision to approve the Project.

3.2 Significant Unavoidable Adverse Environmental Impacts

Although all of the potential long-term Project impacts have been substantially avoided or mitigated, as described in the Findings and Facts in Support of Findings, there remain some short-term Project impacts concerning air quality for which complete mitigation is not feasible. For these impacts, mitigation measures were identified and adopted by the Lead Agency, however, even with implementation of the measures, the City finds that the short-term impacts described below cannot be reduced to a level of less than significant. The impacts and alternatives are described below and were also addressed in the Findings.

The Final EIR identified the following short-term, unavoidable adverse impacts of the proposed Project. All of the impacts identified below are temporary and would occur only during project construction:

- **Impact AQ 2a:** The project would violate the air quality standard and contribute substantially to an existing or projected air quality violation for construction-related VOC and NO_x emissions.
- **Impact AQ 3a:** The project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) during construction.
- **Cumulative Air Quality Impacts:** The project would result in cumulative impacts to air quality during construction.

3.3 Overriding Considerations

The City, after balancing the specific economic, legal, social, technological, and other benefits of the proposed Project, has determined that the short-term, unavoidable adverse environmental impacts identified above may be considered acceptable due to the following specific considerations, which outweigh the unavoidable, adverse environmental impacts of the proposed Project, each of which standing alone is sufficient to support approval of the Project, in accordance with CEQA Section 21081(b) and CEQA Guideline Section 15093.

1. **Restoration of approximately 76.5 acres of wetlands and habitat on the Synergy Oil Field site.** The project proposes to restore approximately 76.5 acres of a historic oil field that was historically part of the Los Cerritos Wetlands complex to a self-sustaining coastal wetlands habitat area. The costs of the wetlands restoration will be borne by the project. The project applicant is also in the process of establishing a wetlands mitigation bank, the sale of credits from which would help recover its restoration costs.
2. **Relocation of the Synergy oil operations off of the Synergy Site which will facilitate the cleanup of the Synergy property and accelerate the removal of oil wells off of the Synergy and City Sites.** Currently, there are 53 active and idle oil wells operating on the Synergy Oil Field site and the City Property site. These wells have been on the property since the 1940s and utilize old equipment. Moreover, the wells are scattered throughout the properties making it difficult to provide for a comprehensive restoration of these properties for open space and habitat purposes. The project would

provide for the phase out of all of the existing oil wells and would replace them with new wells on a much smaller footprint. The consolidation of oil production from over 100 acres to two 5-acre sites with far less habitat area than the current oil fields = would provide a tremendous environmental benefit. Additionally, the voluntary reduction of the oil produced on the Synergy and City sites to an amount equal to 25% of the maximum oil production on both of these properties, as defined in the Project EIR, will provide environmental benefits through the reduction in air emissions.

3. **Construct new entry monuments to the City at the northeast corner of the intersection of Pacific Coast Highway and San Gabriel Flood Control Channel.** The project will provide new entry monument signage on the perimeter of the Pumpkin Patch site which is the border between the City of Long Beach and the City of Seal Beach. For many years, the City has desired to improve the gateway to Long Beach but has had limited opportunity to do so. The project provides the opportunity to construct an entrance to the City without the use of public funds.
4. **Relocate and renovate the Bixby Ranch Field Office building and convert it for use as a visitors center for the benefit of the Los Cerritos Wetlands Authority and to provide public access to the Los Cerritos Wetlands.** The Bixby Ranch Field Office building is a historically significant structure and has been determined to be eligible for listing in the California Register of Historic Places as well as the local register. It is currently used as the offices for the Synergy Oil Company. In its current location, the building is located within the Newport-Inglewood Fault zone and at an elevation that could expose it to inundation in the event of sea level rise impacting the site. The project proposes to relocate the building by moving it 427 feet southwest of its current location to an approximately 1.42-acre previously-disturbed area within the oil field site. The proposed relocation will remove the structure from the Newport-Inglewood Fault zone, and its placement on a raised pad will address the potential impacts of sea level rise. The project will also rehabilitate and adapt the building into a visitors center, and will provide landscape, hardscape, and parking lot improvements around the building to support public access use of the site and building. Once relocated and renovated, the building would be conveyed to the Los Cerritos Wetlands Authority and will be available for public use, including providing educational programs for the benefit of the community. The project will provide public access to a key portion of the Los Cerritos Wetlands which has up until now been fenced off from public use due to the oil field operations.
5. **Provide new on-site public access opportunities.** In addition to the new visitors center that would be provided by the project, the project will also provide a new perimeter trail that will extend from the relocated visitors center, along the perimeter of the Synergy Oil Field site adjacent to Studebaker Road, to Steamshovel Slough. Docent-led tours will provide educational opportunities for the public to learn more about and experience the restored wetlands habitat.
6. **The City will receive an increase in tax dollars from the new oil production activities.** Long Beach imposes a tax on oil production which is currently estimated at 40 cents/barrel of oil produced. As a result of this project, the incremental increase in annual tax proceeds from new oil production could, at maximum operating capacity, provide approximately \$4 million in tax revenues to the City.
7. **New employment opportunities will be provided.** The proposed project will provide short-term construction jobs and new long-term employment opportunities. It is estimated that during construction activities, up to 160 workers could be present on site. The project could generate approximately 30 new permanent employment positions for the oil operations, in addition to the 15 existing employees. Depending upon the number of workers needed during the drilling phase of the project, a total of 60 workers (inclusive of the 45 described above) workers may be required. The operation of the visitors center and operation and maintenance of the public access trails on the Synergy Oil Field site would also generate 5 additional employees, including 3 full-time employees and 2 volunteers.
8. **Removal of oil field infrastructure from the Synergy Oil Field site and the City Property site to reduce potential site hazards.** The project will result in the removal, abandonment and remediation of

oil facilities from both the Synergy Oil Field and City Property sites that are no longer in use and no longer needed to support the remaining oil operations. While these facilities, such as tanks, pipelines, and wells, remain on these two sites, they pose a potential safety threat due to the potential for leaks, ruptures, and failures. Because these facilities were constructed over 60 to 70 years ago, their placement and elevation did not take into consideration protection from sea level rise and periodic flooding which only serve to underscore the potential safety issues concerning these facilities that will be greatly improved pursuant to the project.⁹ **Off-site improvements will be provided.** Consistent with and to promote City policy, the project will construct various off-site improvements which are not directly required to support the project, but will provide overall benefits to the City and its residents, specifically in furtherance of public access. All impacts of the off-site improvements, including impacts to biological resources, can be mitigated to less than significant. The project applicant will construct perimeter sidewalk improvements and provide landscaping around the perimeter of the Project Sites as follows:

- **On the Synergy Oil Field Site:** Sidewalks along PCH and 2nd Street and Studebaker; a bike lane along 2nd Street, PCH and Studebaker
- **On the City Property Site:** Install sidewalks along 2nd Street; and install bike lanes along 2nd Street
- **On the Pumpkin Patch Site:** Repair sidewalks along PCH and install new sidewalk along Shopkeeper Road; install bike lanes along Shopkeeper Road and improve the bike lanes along PCH
- **On the LCWA Site:** Install sidewalks along 2nd Street and Studebaker; and improve the existing bike lane

10. New “cleaner” energy efficient design is a Project Design Feature.

The project has a design feature that provides an energy efficient design through incorporation of features such as use of onsite gas turbines that combine heat and power (i.e., cogeneration), microgrid controls, and installation of solar PV modules. The project’s use of a cogeneration, microgrid controls, and solar PV modules helps to substantially reduce the GHG emissions from the proposed project, and is consistent with state and federal environmental policies. California’s AB 32 Climate Change Scoping Plan includes a range of programs and incentives explicitly supporting GHG reductions from cogeneration. In parallel, the United States Environmental Protection Agency supports federal and state programs and incentives for cogeneration’s reduction of GHG and other pollutants via the USEPA Combined Heat and Power Partnership. Similar state and federal initiatives explicitly support expanded use of microgrids and solar PV for energy efficiency and reduction of GHG and other pollutants.

The microgrid’s energy source components will include an SCE grid connection, four 4.5 MW gas turbines with heat recovery steam generators for cogeneration and potential generation of 18 MW, and renewable solar photovoltaic with generation potential of 158 kW. The project design will provide production facilities in such a manner that the microgrid can capture energy produced by the oil production operations (i.e., natural gas for cogeneration) and redistribute that energy elsewhere in the system. The microgrid project design feature controls integration of multiple energy sources and uses to maximize efficiency, environmental benefits, cost savings, and reliability. GHG reductions are provided by the microgrid because it allows for the real-time integration of clean and renewable energy sources with energy efficiency controls on energy using equipment. The microgrid can match the cleanest energy sources with the cleanest, most efficient energy uses.

The project will also use cogeneration as another project design feature to minimize GHG emissions. The use of cogeneration represents the utilization of advanced technology to capture/use waste heat from turbines and minimize greenhouse gas emissions. The primary focus of the cogeneration process will be to heat oil and water, and cool gas as part of the oil production/separation process. The water

reclaimed from this process is injected back into the oil production formation, and the gas and oil is sold for use and further processing, respectively. As the oil/water mixture enters the separation chamber it is heated and chemicals may be applied to enhance separation. Gas coming off of this process is cooled to remove water and heavy hydrocarbons. Without cogeneration, natural gas would be combusted in a boiler to heat the oil/water mixture. With cogeneration, waste heat from the turbine exhaust is used to heat the oil/water mixture rather than being exhausted to the atmosphere. Again, without cogeneration, refrigeration units powered by electricity would be utilized. With cogeneration, the steam from the turbines powers the refrigeration units. As calculated in Section 3.6 of the EIR, and the GHG Mitigation White Paper, an additional 21% of GHG emissions would be generated without cogeneration. Therefore, the inclusion of the project design feature will result in greater environmental benefits.

- 11. Emission-reducing benefits of turbine selection.** The turbine that is proposed for use by the project reduces GHG emissions by approximately 15% as compared to other equipment options available on the market today. The Project will use turbines that produce low emissions and help reduce EIR-identified emission impacts below levels of significance.

3.4 Conclusion

In conclusion, the City Council has identified and analyzed all potentially significant impacts of the proposed Project and has concluded that only three short-term, construction-related impacts remain unavoidable and adverse after all mitigation measures have been examined. In addition, because these unavoidable impacts are all generated by construction emissions, these impacts would also result from implementation of any of the alternatives that contemplate development. The City Council has identified economic and social benefits and important public policy objectives that will result from implementation of the proposed project. These Project characteristics will provide benefits to not only the City and its residents, but members of the public from surrounding cities and the region. The City Council has sought to balance these substantial economic and social benefits against the significant, short-term, unavoidable adverse environmental effects of the proposed project. Given the substantial social and economic benefits that will accrue to the City and to the region from the implementation of the proposed Project, the City Council finds that the proposed project's identified benefits override the Project's identified significant environmental impacts.

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 **ESA**



CITY OF LONG BEACH

DEPARTMENT OF DEVELOPMENT SERVICES

333 West Ocean Blvd., 5th Floor Long Beach, CA 90802 (562) 570-8194 FAX (562) 570-8068

PLANNING BUREAU

APPLICATION FOR APPEAL

An appeal is hereby made to Your Honorable Body from the decision of the

- Site Plan Review Committee
- Zoning Administrator
- Planning Commission
- Cultural Heritage Commission

Which was taken on the 30th day of November, 2017.

Project Address: Synergy Oil Field @ 6433 E. 2nd St. / 6701 EPCH

I/We, your appellant(s), hereby respectfully request that Your Honorable Body ~~reject~~ the decision and Approve / Deny the application or permit in question.

ALL INFORMATION BELOW IS REQUIRED

Reasons for Appeal: See attached

Appellant Name(s): CARP Citizens About Responsible Planning
 Organization (if representing) Ann Cantrell Treasurer
 Address: 3106 Claremore
 City Long Beach State CA ZIP 90808 Phone 562/596-7288
 Signature(s) Ann Cantrell Date 12/11/17

- A separate appeal form is required for each appellant party, except for appellants from the same address, or an appellant representing an organization.
- Appeals must be filed within 10 days after the decision is made (LBMC 21.21.502).
- You must have established *aggrieved* status by presenting oral or written testimony at the hearing where the decision was rendered; otherwise, you may not appeal the decision.
- See reverse of this form for the statutory provisions on the appeal process.

BELOW THIS LINE FOR STAFF USE ONLY

Appeal by Applicant Appeal by Third Party

Received by: [Signature] Case No.: 1601-05 Appeal Filing Date: 12/11/17
 Fee: \$100.00 Fee Paid Project (receipt) No.: PLNB40865

Statutory Provisions for Appeal, from LBMC Chapter 21.21 (Administrative Procedures)

Division V. - Appeals

21.21.501 - Authorization and Jurisdiction.

- A. Authorization. Any aggrieved person may appeal a decision on any project that required a public hearing.
- B. Jurisdiction. The Planning Commission shall have jurisdiction on appeals of interpretations made pursuant to Section 21.10.045 and decisions issued by the Zoning Administrator and Site Plan Review Committee, and the City Council shall have jurisdiction on appeals from the Planning Commission as indicated in Table 21-1. Decisions lawfully appealable to the California Coastal Commission shall be appealed to that body.

21.21.502 - Time to file appeal. An appeal must be filed within ten (10) days after the decision for which a public hearing was required is made.

21.21.503 - Form of filing. All appeals shall be filed with the Department of Planning and Building on a form provided by that Department.

21.21.504 - Time for conducting hearing of appeals. A public hearing on an appeal shall be held:

- A. In the case of appeals to the City Planning Commission, within sixty (60) days of the date of filing of the appeal with the Department of Planning and Building; or
- B. In the case of appeals to the City Council, within sixty (60) days of the receipt by the City Clerk from the Department of Planning and Building of the appeal filed with the Department.

21.21.505 - Findings on appeal. All decisions on appeal shall address and be based upon the same conclusory findings, if any, required to be made in the original decision from which the appeal is taken.

21.21.506 - Finality of appeals.

- A. Decision Rendered. After a decision on an appeal has been made and required findings of fact have been adopted, that decision shall be considered final and no other appeals may be made except:
 - 1. Projects located seaward of the appealable area boundary, as defined in Section 21.25.908 (Coastal Permit—Appealable Area) of this title, may be appealed to the California Coastal Commission; and
 - 2. Local coastal development permits regulated under the city's Oil Code may be appealed to the city council.
- B. No Appeal Filed. After the time for filing an appeal has expired and no appeal has been filed, all decisions shall be considered final, provided that required findings of fact have been adopted.
- C. Local Coastal Development. Decisions on local coastal development permits seaward of the appealable area shall not be final until the procedures specified in Chapter 21.25 (Coastal Permit) are completed.

Appeal to Planning Commission decision on Nov. 30, 2017 on File 17-086PL

Title:

Recommendation to recommend that the City Council certify Environmental Impact Report (03-15) and approve a Zoning Code Amendment, Local Coastal Program Amendment, Site Plan Review, Oil Map Amendment, and Certificate of Compliance to consolidate existing oil operations, implement a wetlands habitat restoration project, and provide public access opportunities, located on four sites (Synergy Oil Field at 6433 East 2nd Street, City property at the southeast corner of Studebaker Road and 2nd Street, Pumpkin Patch site at 6701 E. Pacific Coast Highway, and the Los Cerritos Wetlands Authority site at the northeast corner of Studebaker Road and 2nd Street) within the Southeast Area Development and Improvement Plan (SEADIP/PD-1) area. (District 3) (Application No. 1601-05 (A through-D))

Reasons for appeal

Basing the EIR on the current SEASIP does not conform with the city's LCP

Alternates studied are inadequate

Significant impacts with Noise, Lights, Biological, Aesthetics, Cultural Resources and Public Services

The use of Steam Shovel Slough as a mitigation bank is a violation of the Public Trust Doctrine, a legal principal that states tidelands and waterways cannot be monopolized by private parties and cannot be bought and sold like other state-owned lands.

Mitigations for bird nesting is inadequate.

No Mitigation for taking of Least Tern nesting site on the Pumpkin Patch

Inadequate biological studies of the Pumpkin Patch as a wetland and possible ESHA site

Pipelines through the wetlands adjacent to an earthquake fault are unsafe

Drilling and water replacement uses excessive potable water, depleting water supplies for the public

Traffic impacts not mitigated

The DEIR dismisses all of the possible hazards to water quality: oil drilling, flooding, tsunamis, and sea level rise as less than significant

Up to 44 years of extraction will continue on current properties in addition to 120 new wells on currently uncontaminated lands.

©ARP by Ann Cantrell



CITY OF LONG BEACH

DEPARTMENT OF DEVELOPMENT SERVICES

333 West Ocean Blvd., 5th Floor Long Beach, CA 90802 (562) 570-8184 FAX (562) 570-6068

PLANNING BUREAU

APPLICATION FOR APPEAL

An appeal is hereby made to Your Honorable Body from the decision of the

- Site Plan Review Committee
- Zoning Administrator
- Planning Commission
- Cultural Heritage Commission

Which was taken on the 14th day of December, 2017

Project Address: 2 sites

Los Cerritos Wetlands Restoration & Consolidation Project

I/We, your appellant(s), hereby respectfully request that Your Honorable Body reject the decision and Approve / Deny the application or permit in question.

ALL INFORMATION BELOW IS REQUIRED

Reasons for Appeal: refer to attached document and for address of project refer to Application 1601-05

Appellant Name(s): Protect the Long Beach/Los Cerritos Wetlands
 Organization (if representing): Anna Christensen/Charles Moore
 Address: 259 Termino Ave, B
 City Long Beach State Ca ZIP 90803 Phone (562) 4340229
 Signature(s) [Signature] Date 12/11/17

- A separate appeal form is required for each appellant party, except for appellants from the same address, or an appellant representing an organization.
- Appeals must be filed within 10 days after the decision is made (LBMC 21.21.502).
- You must have established *aggrieved* status by presenting oral or written testimony at the hearing where the decision was rendered; otherwise, you may not appeal the decision.
- See reverse of this form for the statutory provisions on the appeal process.

BELOW THIS LINE FOR STAFF USE ONLY

Appeal by Applicant Appeal by Third Party

Received by: [Signature] Case No.: 1601-05 Appeal Filing Date: 12/11/2017
 Fee: \$100.00 Fee Paid Project (receipt) No.: PLNB40867

Statutory Provisions for Appeal, from LBMC Chapter 21.21 (Administrative Procedures)

Division V. - Appeals

21.21.501 - Authorization and jurisdiction.

- A. Authorization. Any aggrieved person may appeal a decision on any project that required a public hearing.
- B. Jurisdiction. The Planning Commission shall have jurisdiction on appeals of interpretations made pursuant to Section 21.10.045 and decisions issued by the Zoning Administrator and Site Plan Review Committee, and the City Council shall have jurisdiction on appeals from the Planning Commission as indicated in Table 21-1. Decisions lawfully appealable to the California Coastal Commission shall be appealed to that body.

21.21.502 - Time to file appeal. An appeal must be filed within ten (10) days after the decision for which a public hearing was required is made.

21.21.503 - Form of filing. All appeals shall be filed with the Department of Planning and Building on a form provided by that Department.

21.21.504 - Time for conducting hearing of appeals. A public hearing on an appeal shall be held:

- A. In the case of appeals to the City Planning Commission, within sixty (60) days of the date of filing of the appeal with the Department of Planning and Building; or
- B. In the case of appeals to the City Council, within sixty (60) days of the receipt by the City Clerk from the Department of Planning and Building of the appeal filed with the Department.

21.21.505 - Findings on appeal. All decisions on appeal shall address and be based upon the same conclusionary findings, if any, required to be made in the original decision from which the appeal is taken.

21.21.506 - Finality of appeals.

- A. Decision Rendered. After a decision on an appeal has been made and required findings of fact have been adopted, that decision shall be considered final and no other appeals may be made except:
 - 1. Projects located seaward of the appealable area boundary, as defined in Section 21.25.908 (Coastal Permit—Appealable Area) of this title, may be appealed to the California Coastal Commission; and
 - 2. Local coastal development permits regulated under the city's Oil Code may be appealed to the city council.
- B. No Appeal Filed. After the time for filing an appeal has expired and no appeal has been filed, all decisions shall be considered final, provided that required findings of fact have been adopted.
- C. Local Coastal Development. Decisions on local coastal development permits seaward of the appealable area shall not be final until the procedures specified in Chapter 21.25 (Coastal Permit) are completed.

December 11, 2017

To: Long Beach Planning Commission and Long Beach Development Services

From: Protect the Long Beach/Los Cerritos Wetlands

Contact person: Anna Christensen, achris259@yahoo.com, (562) 434 0229

Protect the Long Beach/Los Cerritos Wetlands appeals the decision by the Long Beach Planning Commission to approve the Los Cerritos Wetlands Restoration and Oil Consolidation Project (the FEIR and all requested permits).

Approval should be denied due to

1. Flawed process - lack of public outreach and public input regarding a project involving public agencies, public lands, and public resources. Lack of outreach to affected Native Americans, including local California Indian Tribes. The project FEIR is inadequate due to the failure of public agencies to hold public meetings or otherwise provide the general public with an understanding of the project. The public has also been misinformed due to misleading/false statements by the project developers and public officials regarding the project. Additionally, public agencies have failed to respond to questions posed to them by members of the public.
1. The LCWA, a public environmental protection agency representing two other public environmental agencies (the California Coastal Conservancy and the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy) and two cities (Long Beach and Seal Beach) is a partner in the Los Cerritos Wetlands Restoration and Oil Consolidation Project. The project is partially sited on public lands owned by both the LCWA and the City of Long Beach. Public groundwater will be used to both extract oil and to prevent subsidence, and pipelines will extend over and under public wetlands. Public lands will also be used to site storage facilities, refine oil, and process wastewater. To date, no public entity, including the LCWA and the cities of Long Beach and Seal Beach, has hosted a public meeting on the Los Cerritos Wetlands Restoration and Oil Consolidation Project. Beach Oil Mineral Partners, on the other hand, has launched an extensive PR campaign, supported by the LCWA and some public officials, which can only be described as disinformation.
2. Under state law, the City of Long Beach is required to establish a relationship with local California Indian Tribes ensuring their participation in projects that could potentially affect their cultural resources and/or the ability to maintain their cultural practices. In spite of repeated requests, the city has failed to do so and, along with the LCWA and Beach Oil Mineral Partners has excluded

affected tribal organizations and individuals from the EIR and permitting process for the Los Cerritos Wetlands Restoration and Oil Consolidation Project.

3. A PR disinformation campaign promoting the Los Cerritos Wetlands Restoration Project has been waged by Beach Oil Mineral Partners and, to the extent that they have endorsed and/or participated in it, by the LCWA and LBDS. BOMP's promos falsely describe the Los Cerritos Wetlands Restoration Project as

- a gift of land from Beach Oil Mineral Partners
- a benefit to the community
- an exchange of older unsafe technology for safer modern methods
- having the full support of residents and no opponents
- a green, wetlands restoration project
- a consolidation its current oil operations
- ending oil drilling in the Los Cerritos Wetlands

II Involvement of Public Agencies and Public Lands in the Los Cerritos Wetlands Restoration and Oil Consolidation Project is unethical and illegal

- 1) Public groundwater, public waterways, and public lands, especially those in coastal wetlands at risk for seismic activity, should not be made available to expand private oil operations, including extracting, storing, processing, and/or transporting oil.
- 2) State environmental protection agencies should not engage in expanding oil drilling operations, nor enable the use of public groundwater or waterways for the purpose of oil extraction. By entering into a long-term legal partnership, including land-exchange and property management agreements, the LCWA and its voting members, the California Coastal Conservancy and the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC), violate their missions, and the regulations under which they were constituted, are publicly funded, and are allowed to operate.
- 3) The City of Long Beach, lead agency on the project, acknowledges that Steamboat Slough's status under Public Trust Law is unsettled. Yet the city has allowed developers to assume ownership and to propose both a wetlands restoration plan that could pollute this rare and thriving salt marsh and a mitigation bank that would use the Steamboat Slough as a source of mitigation credits.
- 4) The LCWA property was awarded in a settlement with Southern California Edison for the exclusive purpose of restoring the Los Cerritos Wetlands. To site BOMP's new oil operations on the LCWA site violates the terms of this settlement and could void the deed to the property.

III. Flawed Project, conclusions of No or Mitigated environmental impacts are incorrect

The Los Cerritos Wetlands Restoration and Oil Consolidation Project

- violates the rights of California Indians and other tribal peoples to protect their sacred sites and cultural resources and to maintain their cultural practices.
- threatens public health, safety, and property values
- will have unavoidable negative environmental impacts on the ecosystems of the Los Cerritos Wetlands, Alamitos Bay, the Colorado Lagoon, the San Gabriel River, and our beaches.

The Los Cerritos Wetlands Restoration and Oil Consolidation Project does not consolidate BOMP's oil drilling operation, nor remove it from the Los Cerritos Wetlands. It actually expands oil and water drilling beneath the wetlands and surrounding areas. While continuing to operate existing oil wells, the project adds 120 new oil, water source, and water injection wells as well as new oil storage and refining facilities.

- 1) The project FEIR states that there are no "sacred sites" in the project area. This is incorrect and violates the rights of Indigenous Peoples to define the sacred. It also ignores testimony by Tongva and Acjachemen tribal organizations, and experts in tribal cultural resource protection.
- 2) The project will have unavoidable negative environmental impacts due to the alteration of surface and subsurface lands and waters and the disruption of the ecosystem during the construction and restoration phases and throughout the operation of oil extraction. Projected air pollution will exceed the legal limit. The proposed extraction of 200 million barrels of oil will increase greenhouse gas emissions and reduce the ability to meet climate change targets
- 3) Accidental pollution events are inevitable. These could include the release of oil and toxic waste due to pipeline breaks, tank ruptures, mechanical failures, and/or seismic activity (possibly induced by the proposed method of extraction).
- 4) The developers insist that the project can withstand any and all seismic activity. However, the FEIR fails to make the case. Responding to questions posed by Susan Hough, Earthquake Science Center, USGS, LBDS revealed a total disregard for public safety. See response to LBAPN's comments to project DEIR and **Induced earthquakes in Los Angeles?: Hough and Page (BSSA, 2016)**.
- 5) The developers insist that they have no plans to frack the wetlands. The project DEIR states that there is no need to discuss fracking because they will follow laws regulating fracking, should it decide to do so in the future. In commenting on the DEIR, the California Coastal Commission staff rejected this position, in part because current law fails to provide transparency or address the negative impacts of fracking.
- 6) Public comments to the project's DEIR regarding both the wetlands restoration plan and the expansion of oil extraction and processing, describe, in detail, the unavoidable negative impacts to the biological resources of the Los Cerritos Wetlands, Alamitos Bay, the Colorado Lagoon, the

San Gabriel River, and our beaches. We do not believe that they have been adequately addressed in the FEIR, nor do we agree with the conclusion that these negative impacts can be mitigated.

Additionally

- 1. Protect the Long Beach/Los Cerritos Wetlands supports any and all other appeals of the Long Beach Planning Commission's decision to approve The Los Cerritos Wetlands Restoration and Oil Consolidation Project (the FEIR and all requested permits) by community groups and individuals.**
- 2. We also endorse and submit the public comments to the Los Cerritos Wetlands Restoration and Oil Consolidation DEIR and FEIR submitted by LBAPN, Long Beach 350, CARP, CCRPA, Long Beach Citizens for Fair Development, and the California Coastal Commission.**
- 3. We also support and submit the oral testimony given by individuals and organizations opposed to the project at the Long Beach Planning Commission Meeting on November 30th (see video online at http://longbeach.granicus.com/MediaPlayer.php?view_id=12&clip_id=9503)**

EXHIBIT P

Response to the Appeal Filed by Citizens About Responsible Planning (CARP) (Anne Cantrell, Treasurer)

The following responses are provided to the points presented in the appeal document. As the appeal document is an un-numbered list of 12 items, the following numbered list correlates to each of the sentences listed in the appeal document and includes the first few words of the sentence for ease of identification.

1. **Basing the EIR on the current SEASIP:** The City's EIR analyzed the project's land use impacts against the existing zoning which is the Southeast Area Development and Improvement Plan (SEADIP) document. The EIR also noted that the City is in the process of replacing the SEADIP with a new South East Area Specific Plan (SEASP), but because that plan is not yet in effect, and requires Coastal Commission approval, the applicable zoning is the SEADIP. A similar comment from the appellant was addressed in the City's EIR at Response to Comments 24b-1 and 24b-2.
2. **Alternates studied are inadequate:** No information is provided as to why the appellant asserts that the alternatives are inadequate. This comment was made by the appellant in its comment letter on the Draft EIR and responded to by the City at Response to Comment 24b-7.
3. **Significant impacts:** No information has been provided in the appeal as to the appellant's concern with the identified significant impacts, all of which were addressed by the City in the EIR for the proposed project.
4. **The use of Steam Shovel Slough:** The comment asserts that the use of Steamshovel Slough as a mitigation bank is in violation of the Public Trust Doctrine. This comment was raised in the comments provided to the City on the Draft EIR and responded to in Response to Comments 24b-11 and 13a-49.
5. **Mitigations for bird nesting is inadequate:** No information has been provided in support of this statement; however, a similar comment was made by the appellant on the Draft EIR and responded to by the City at Response to Comment 24b-17.
6. **No mitigation for taking of Least Tern nesting site on the Pumpkin Patch:** The City's Draft EIR did not identify any least terns or a least tern nesting site on the Pumpkin Patch Site. See Draft EIR at page 3.3-64.
7. **Inadequate biological studies of the Pumpkin Patch as a wetland and possible ESHA site:** The City's Draft EIR analyzed the potential jurisdictional habitats on the project site, including the Pumpkin Patch Site. (See Draft EIR at pages 3.3-74 to 3.3-78.) The Coastal Commission's Senior Ecologist, also provided a comment memo addressing wetlands and ESHA on the Pumpkin Patch Site which the City has responded to in the Final EIR. (See Comments 4b-141 to 4b-145, and the City's responses to those comments.)
8. **Pipelines through the wetlands adjacent to an earthquake fault:** The impacts of constructing and operating a pipeline through the City Property Site adjacent to wetland areas

and the Newport Inglewood Fault was addressed in the City's Final EIR at Responses to Comments 4b-10 to 4b-14.

9. **Drilling and water replacement:** The appellant alleges that the use of water in oil production activities depletes water supplies for the public. The City's EIR analyzed the project's water demand and determined that the City has adequate supplies of water to serve both the public and any water needs of the proposed project. See Draft EIR at pages 2.17-10 to 3/17-12.

10. **Traffic impacts not mitigated:** No information has been provided in support of this statement. The City's EIR analyzed the traffic impacts of the project at Chapter 3.15, and determined that all potential impacts would be reduced to less than significant with the implementation of the identified mitigation measures.

11. **The DEIR dismisses all of the possible hazards to water quality:** No information has been provided in support of this statement. The City's EIR analyzed the impacts of the project on water quality, including potential impacts of flooding, tsunami and sea level rise. See Chapter 3.8 of the Draft EIR.

12. **Up to 44 years of extraction will continue:** The appellant asserts that up to 44 years of extraction will occur on current properties in addition to 120 new wells on currently uncontaminated lands. The project will reduce the number of operation oil wells by 50% within 20 years of the "New Occupancy Date" as that term is defined in the City's EIR, and by 100% within 40 years from the New Occupancy Date. The project proposes to drill 120 new wells which consist of a mix of oil wells, water injection wells and water source wells. As discussed in the City's EIR, the Pumpkin Patch Site is the location of a former municipal landfill that has been identified to include regulated materials such as total petroleum hydrocarbons, and PCB compounds (see Draft EIR at page 3.7-9 and -10), and the LCWA Site included a "dump pit" (see Draft EIR at page 3.7-11).

**Response to the Appeal filed by Protect the Long Beach/Los Cerritos Wetlands
(Anna Christensen)**

The following responses are provided to the points presented in the appeal document. The responses are correlated to the outline and numbering used in the appeal document.

Many of the statements in this appeal were included in the appellant's comment letter on the City's Draft EIR for the proposed project and were responded to in the Final EIR. See Responses to Comment Letter 13a.

Section I., Flawed Process: The appeal states that the project should be denied due to lack of public outreach and public input, and lack of outreach to Native Americans.

There has been extensive outreach conducted by the City as well as the applicant. The Notice of Preparation for this project was circulated for 30 days from April 28, 2016 to May 27, 2016 as required by CEQA and invited members of the public to comment on the project and the scope of environmental issues that should be addressed by the City. In addition, the City held a public scoping session pursuant to CEQA on May 11, 2016. The Planning Commission held a public study session on the project on April 20, 2017, and a second study session on the project's Environmental Impact Report (EIR) on August 17, 2017 at which public testimony was given. The Planning Commission held a public hearing on the project on November 30, 2017.

The appeal also alleges that public agencies have failed to respond to questions posed to them by members of the public. The appellant (as well as other members of the public) submitted comments on the City's EIR for the project, and responses to each of the appellant's comments have been provided.

With respect to Native American consultation, consultation is mandated by two State statutes commonly referred to as SB 18 and AB 52. Consultation letters were sent to eleven Native Americans who were identified by the Native American Heritage Commission as having tribal connections to the project area. As described on page 3.16-2 of the City's Final EIR, three responses were received from two tribal groups. A full discussion of the City's Native American consultation process is included in Chapter 3.16 of the City's EIR. The appellant also included this assertion in its comment letter to the Draft EIR. See Response to Comments 13a-6, 13a-13 and 13a-14.

In addition, to the City's public hearings and meetings, the applicant has also conducted its own outreach, information about which has been included in the record of proceedings.

Section I.1: This paragraph addresses the role of LCWA, which is a co-applicant for the project and whose 5-acre property is part of the project site. The appellant states that the LCWA and the Long Beach have not hosted public meetings on the Project. A list of the City's meetings is discussed above. In addition, the LCWA has held at least two public meetings on the project at which members of the public, including the appellant, have provided comments. As the City of

Seal Beach has no regulatory authority over the project, it is not expected that Seal Beach would hold any hearings on the project.

Section I.2: This paragraph addresses the responsibility of the City to consult with Native American tribes. The City's consultation process is described above in Section I., and in Chapter 3.16 of the City's EIR for the project, and in the Responses to Comment Letter 13a in the Final EIR.

Section I.3: This paragraph inaccurately describes the characteristics of the project and improperly attributes them to the project applicant. The project is described in the City's EIR at Chapter 2, and the project applicant's statements regarding its project can be found on its website: <http://loscerritoswetlandsrestorationplan.com/the-plan-los-cerritos-wetlands-restoration/>.

Section II, Involvement of Public Agencies and Public Lands: The appellant expresses its personal opinions regarding the project in paragraph (1) and (2). The statement in paragraph (3) regarding Steamshovel Slough and the public trust doctrine was submitted by the appellant in its comment letter to the City's EIR, and the City responded to this comment. See Response to Comment 13a-49. The statement in paragraph (4) was responded to by the City in Response to Comments 13a-26 and 13a-39.

Section III, Flawed Project: The appellant raises a number of objections regarding the potential impacts of the project. The City's EIR for the proposed project provides a thorough and comprehensive analysis of the impacts regarding cultural resources, tribal cultural resources, public hearing and safety and impacts on wetlands. The impact on property values is not an environmental impact. The project is considered a consolidation project because over time the footprint of oil production activity will be reduced from approximately 186 acres (the Synergy Oil Field Site and the City Site) to 10 acres (the LCWA Site and the Pumpkin Patch Site). With respect to the allegations in the numbered paragraphs, the following responses are provided.

Section III.1: The Native American Heritage Commission, the State agency charged with responsibility for protection of Native American cultural resources, including sacred sites, was consulted with respect to the presence of sacred sites in the area of the project and informed the City that there were no sacred sites within the immediate area of the project. The City conducted consultation with the Native American individuals identified by the Native American Heritage Commission and the presence of sacred sites on the project site was not identified. See Chapters 3.4 and 3.16 in the Draft EIR.)

Section III.2: The environmental impacts of the project were addressed in the City's EIR. The air quality impacts of the project are analyzed in Section 3.2 of the City's EIR, and its greenhouse gas impacts (which were determined to be less than significant with the implementation of mitigation) are discussed in Section 3.6 of the EIR.

Section III.3: The risks of upset that are described in this comment were addressed in Section 3.7 of the EIR, and were responded to in Response to Comment 4b-10-14 in the City's Final EIR.

Section III.4: The Susan Hough questions were responded to in the City's Final EIR at Response to Comments 13a-35 to 13a-38. The Draft EIR at Appendix E-6 also addressed the Hough article regarding induced earthquakes in Los Angeles.

Section III.5: The City responded to the Coastal Commission's questions regarding fracking. See Response to Comment 4b-105.

Section III.6: The appellant states the opinion that public comments have not been adequately responded to by the City in the EIR. As stated previously, the City has prepared an EIR that comprehensively addressed the potential environmental impacts of the project and responded to comments and questions from the public, including the appellant.

Section Titled "Additionally: The appellant states that it supports any other appeals, submit the comments of other named organizations – responses to which were provided by the City in the Final EIR; and support and submit the oral testimony delivered at the November 30, 2017 Planning Commission hearing which are already a matter of public record and which were considered by the Planning Commission prior to rendering its decision on the project.