

CHAPTER 9

Responses to Comments

9.1 Introduction

CEQA Guidelines Section 15088 requires the Lead Agency, the City of Long Beach (City), to evaluate comments on environmental issues received from public agencies and interested parties who reviewed the Draft EIR and prepared written responses. This section provides all written responses received on the Draft EIR and the City's response to each comment. Comment letters and specific comments are coded with letters and numbers for reference purposes.

Table 9-1, Commenters on the Draft EIR, lists the agencies, organizations, and individuals who submitted comments on the Draft EIR during the public review period. Comments received on the Draft EIR and responses to those comments are provided on the following pages.

Table 9-1 Commenters on the Draft EIR

Agency/Organization/Individual Name	Letter Code	Date of Comment	Comment Begins on Final EIR Page	Response Begins on Final EIR Page
State Agencies				
Department of Toxic Substances Control	1a & 1b	8/24/2017	9-3	9-3 & 9-10
California Department of Transportation	2a & 2b	9/6/2017	9-22	9-26 & 9-26
State Clearinghouse	3a & 3b	9/7/2017	9-32	9-44 & 9-44
California Coastal Commission	4a & 4b	9/15/2017	9-45	9-75 & 9-75
Local Agencies				
County Sanitation Districts of Los Angeles County	5a & 5b	8/22/2017	9-145	9-148 & 9-150
Los Angeles County Fire Department	6	8/31/2017	9-151	9-153
South Coast Air Quality Management District	7a & 7b	9/1/2017	9-155	9-164 & 9-164
Organizations				
California Cultural Resource Preservation Alliance, Inc.	8a, 8b, 8c, & 8d	9/4/2017	9-179	9-183, 9-183, 9-183, & 9-184
Long Beach 350	9a & 9b	9/5/2017	9-186	9-190 & 9-192
El Dorado Audubon Society (prepared by Hamilton Biological)	10a & 10b	9/6/2017	9-193	9-193 & 9-209
Long Beach Citizens for Fair Development	11a & 11b	9/6/2017	9-217	9-220 & 9-220
Los Cerritos Wetlands Land Trust	12	9/6/2017	9-230	9-231
The Long Beach Area Peace Networks	13a & 13b	9/6/2017	9-232	9-299 & 9-320
Belmont Shore Business Association	14	9/18/2017	9-322	9-323

Table 9-1 Commenters on the Draft EIR

Agency/Organization/Individual Name	Letter Code	Date of Comment	Comment Begins on Final EIR Page	Response Begins on Final EIR Page
Individuals				
Larry Goodhue	15	7/6/2017	9-325	9-326
Elliot Gonzales	16	8/29/2017	9-327	9-328
Matthew Vo	17	9/3/2017	9-329	9-330
Cindy Crawford	18a & 18b	9/4/2017	9-331	9-334 & 9-334
Jane Vargas	19	9/4/2017	9-339	9-340
Andrea L. Bell	20	9/5/2017	9-341	9-343
Susan Miller	21	9/5/2017	9-347	9-348
Jessica Ripoll	22	9/5/2017	9-349	9-350
Anne Thompson	23	9/5/2017	9-352	9-353
Anne Cantrell	24a & 24b	9/6/2017	9-354	9-368 & 9-368
Phil Giesen	25	9/6/2017	9-380	9-382
Gregory Gill, Alamitos Bay Partnership LLC	26a & 26b	9/6/2017	9-383	9-385 & 9-385
Corliss Lee	27a & 27b	9/6/2017	9-386	9-388 & 9-388
Bill Thomas	28	9/7/2017	9-389	9-390
Benjamin A. Goldberg	29	9/8/2017	9-391	9-392
Suzie Price	30	9/9/2017	9-393	9-395
Public Hearing				
Warren Blesofsky, Long Beach Citizens for Fair Development	31	7/20/2017	9-397	9-399
Anne Cantrell	31	7/20/2017	9-397	9-400
Mary Parsell, El Dorado Audubon	31	7/20/2017	9-397	9-401
Elizabeth Lambe, Los Cerritos Wetlands Land Trust	31	7/20/2017	9-397	9-401

* Comment letter received after close of public comment period.

9.2 Comments and Responses

9.2.1 State Agencies

Comment letters received from State agencies and the Lead Agency's responses to those comments are included on the following pages.

9.2.1.1 Department of Toxic Substances Control (DTSC), August 24, 2017

Comment Letters 1a and 1b

Comment Letter 1a

Subject: FW: Draft Environmental Impact Report - Los Cerritos Wetlands Oil Consolidation and Restoration Project (SCH# 2016041083)
Attachments: Los Cerritos Wetlands Oil Consolidation and Restoration Project_EIR_Comments_08.24.17.pdf

From: Laliberte, Kelly@DTSC [<mailto:Kelly.Laliberte@dtsc.ca.gov>]
Sent: Thursday, August 24, 2017 3:54 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Cc: State.clearinghouse@opr.ca.gov; Kereazis, Dave@DTSC <Dave.Kereazis@dtsc.ca.gov>; Haddad, Shahir@DTSC <Shahir.Haddad@dtsc.ca.gov>
Subject: Draft Environmental Impact Report - Los Cerritos Wetlands Oil Consolidation and Restoration Project (SCH# 2016041083)

Good afternoon:

Attached for your file is the PDF copy of the comments on the 'Draft Environmental Impact Report' for the Los Cerritos Wetlands Oil Consolidation and Restoration Project (SCH# 2016041083). The original signed document will be sent via regular mail. If you have any questions, please contact Mr. Johnson Abraham, Project Manager, at 714.484.5380 or at email address Johnson.Abraham@dtsc.ca.gov.

1a-1

Thank you,

Kelly Laliberte

Brownfields Restoration and School Evaluation Branch
Cal EPA | Department of Toxic Substances Control
5796 Corporate Ave | Cypress, CA | 90630
Tel: 714.484.5475 | Fax: 714.484.5411



Comment Letter 1b



Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, California 90630



Edmund G. Brown Jr.
Governor

August 24, 2017

Mr. Craig Chalfant
Planning Bureau
Development Services Department
City of Long Beach
333 West Ocean Boulevard, 5th Floor
Long Beach, California 90802
craig.chalfant@longbeach.gov

DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) FOR LOS CERRITOS
WETLANDS OIL CONSOLIDATION AND RESTORATION PROJECT
(SCH# 2016041083)

Dear Mr. Chalfant:

The Department of Toxic Substances Control (DTSC) has reviewed the subject EIR. The following project description is stated in the EIR: "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 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 individual sites, which are described in detail below, 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 will be operated as a wetlands mitigation bank. 2 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 will relocate the existing office building on the Synergy Oil Field site to another location on the Synergy Oil Field site, repurpose it for use as a visitors center, construct a new parking area and perimeter trail to provide public access to this portion of the Los Cerritos Wetlands."

1b-1

Mr. Craig Chalfant
August 24, 2017
Page 2

Based on the review of the submitted document, DTSC has the following comments:

1. The EIR states that several sites at or adjacent to the project area are contaminated with hazardous wastes/substances. Proper investigation, sampling and remedial actions overseen by the appropriate regulatory agencies should be conducted prior to the new development or any construction. 1b-2
2. The EIR states, "Oil and natural gas production in the vicinity began as early as 1921. Oil production at each of the four individual sites is discussed further below. Oil field production typically includes the extraction, storage, and transportation of oil and natural gas; and the reinjection of produced water back into the production zone. The maintenance of equipment requires the use of oils and greases, solvents, paints, and thinners." 1b-3
 - a. Identify the name(s) of the regulatory agency(ies) approved the remediation of these four sites. 1b-4
 - b. If soil or groundwater is impacted, then potential vapor intrusion to in-door air associated with contamination should be investigated. 1b-5
 - c. DTSC is unable to evaluate whether vapor sampling and/or potential vapor intrusion risk was adequately addressed due to lack of relevant information. Please provide relevant detailed information in the EIR. 1b-6
3. The EIR states, "Commercial and industrial land uses include former and current gasoline service stations, and other facilities that typically involve the use and storage of fuel, lubricants and oil, solvents, and other hazardous materials." Please see comment #2 above. 1b-7
4. The EIR further states, "Several of the individual sites that compose the project site have been used in the past as landfills. Depending on the nature of the waste materials disposed of in the landfills, the timing of the landfilling operations (early landfills were typically lightly regulated and unlined), and the level of compliance with regulations, the landfilled waste materials may have included hazardous materials or have generated hazardous materials as the buried waste decomposed; however, based upon preliminary investigations these landfills appear to have been used for limited periods of time for primarily municipal and construction wastes." Please see comment #2 above. 1b-8
5. The EIR states, "Portions of the Los Cerritos wetlands area, which includes portions of the individual sites, were used for raising cattle and beets in the 1800s and early 1900s. Historical agricultural land uses may have left behind residual levels of fertilizers, pesticides, and herbicides in soils. In addition, fuels, oils, lubricants, and cleaning solvents for farm equipment maintenance may have been released during use or storage on the prior agricultural areas; however, 1b-9

Mr. Craig Chalfant
August 24, 2017
Page 3

considering the length of time since agricultural use was conducted on these individual sites, it is unlikely that residual chemicals associated with agricultural use would be present and natural attenuation would be expected to have degraded most, if not all, of the chemicals down to inert and nonhazardous compounds." Though organochlorine pesticides may have been degraded through natural attenuation, arsenic from arsenic based pesticides, used in the early 1900s, may be present in onsite soil. DTSC recommends investigation and mitigation, if necessary, to address potential arsenic impact to human health and environment.

1b-9
(cont.)

6. The EIR states, "A Phase I ESA was conducted for the Synergy Oil Field site to identify recognized environmental conditions⁵⁷ (Rincon 2015a). The Phase I report also summarized the results of previous assessments, investigations, and remediation activities. The Synergy Oil Field site is listed on the GeoTracker and EnviroStor websites for the landfill sites and polychlorinated biphenyl (PCB) cleanup; the Phase I ESA included discussion of other spills and cleanups not listed on GeoTracker or EnviroStor websites." The EIR further states that the investigation and remediation are currently underway at the Synergy Oil Field site. Please see comment #2 above.

1b-10

7. The EIR states, "Four spill/release incidents of oil or grease were documented between 2006 and 2010 on the Synergy Oil Field (and/or City Property) site; all of these spills were reportedly cleaned up with the oversight and approval of regulatory agencies." The EIR further states, "The Phase 1 ESA also noted that various other older site investigations and cleanups were conducted from 1992 through 2004 to assess the extent and concentrations of petroleum hydrocarbons in soil across the site." Please see comment # 2 above.

1b-11

8. Regarding City Property Site, the EIR states, "As a part of the previously discussed 2016 and 2017 soil investigations conducted on the Synergy Oil Field site, one soil sample was collected at the northeast corner of the City Property site (HA-16 shown in Figure 3.7-2) (AEC 2017b). The sample was tested for TPH in the gasoline, diesel, and oil range; lead; and arsenic. The testing results were either below detection levels (TPH-gasoline) or at low concentrations below screening levels (all other chemicals) (see Appendix F5). Similar to the other testing results, arsenic was detected above screening levels but below regional background levels. Additional testing has been proposed for the area around the two storage tanks in the southern part of the City Property site (see Figure 3.7-2) (AEC 2017d)." Please see comment #2 above.

1b-12

9. Regarding Pumpkin Patch Site, the EIR states, "Oil production from this site dates to the 1920s and is part of the Seal Beach Oil Field. As listed in Table 2-1 and shown in Figure 2-3, the Pumpkin Patch site has one active and one plugged oil well. As previously discussed, backfilled earthen sumps are anticipated to be adjacent to some wells that would contain produced oil and drilling mud. The

1b-13

Mr. Craig Chalfant
August 24, 2017
Page 4

- Phase I ESA review of 1928 and 1938 aerial photographs indicated within the central-eastern portion of the site two side-by-side sumps adjacent to the drilling derrick. The two sumps and the derrick were removed by 1947. Future grading may encounter crude oil and/or drilling fluids in former sumps in this area." Please see comment #2 above.
10. Regarding LCWA Site, the EIR states, "Stockpiles of waste dirt and construction debris were observed throughout the site and it was reported that the subject site had been built up with approximately 20 feet of undocumented fill soil that was brought on site over a long period previous to 1973." DTSC recommends proper characterization and/or remediation under an appropriate government agency's regulatory oversight.
11. Regarding LCWA Dump Pit, the EIR states, "The 2004 chemical testing of soil indicated soil with elevated concentrations of arsenic lead, nickel, and vanadium. Soil gas concentrations for VOCs did not exceed the conservative shallow soil gas ESLs for the commercial/industrial land use scenario published by the San Francisco Bay Area RWQCB.62 Hydrogen sulfide gas was not detected in the 10 soil gas samples collected at the site. Methane concentrations in soil gas samples were several orders of magnitude below the lower explosive limit (LEL) of 5 percent (50,000 parts per million [ppm]). No VOCs or SVOCs were detected in groundwater samples collected at the LCWA site. In light of elevated concentrations of arsenic, lead, nickel and vanadium in soil at two locations identified during the 2004 investigation, additional soil testing was conducted in June 2017 at two locations proximal to earlier sampling locations within the central portion of the site (AEC 2017e). The results indicated that the metals concentrations were below screening levels, arsenic concentrations were all below regional background levels, and no further investigation or remediation is needed at the LCWA site." Please see comment #2above.
12. Table 3-7-1 of the EIR contains the list of active assessment or remediation in progress at three of the neighboring sites. Please see comment #2 above.
13. If the project plans include discharging wastewater to a storm drain, you may be required to obtain an NPDES permit from the overseeing Regional Water Quality Control Board (RWQCB).
14. The EIR states, "A 2003 survey of the on-site structures indicated that asbestos-containing materials (ACM) and lead-based paint (LBP) had been identified in the office building, north shed, and south shed areas. In addition, tank batteries and pipelines may have ACM insulation or LBP (AEC 2017c)." If planned activities include building modifications/demolitions, lead-based paints or products, mercury, and asbestos containing materials (ACMs) should be addressed in accordance with all applicable and relevant laws and regulations.

Mr. Craig Chalfant
August 24, 2017
Page 5

15. DTSC recommends evaluation, proper investigation and mitigation, if necessary, on onsite areas with current or historical PCB-containing transformers.

1b-19

16. Soil excavated from potentially impacted areas should be sampled prior to export/disposal. If the soil is contaminated, it should be disposed of properly in accordance with all applicable and relevant laws and regulations. In addition, if the project proposes to import soil to backfill the excavated areas, proper evaluation and/or sampling should be conducted to make sure that the imported soil is free of contamination.

1b-20

17. If during construction/demolition of the project in project areas that has not been investigated, soil and/or groundwater contamination is encountered or suspected construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the EIR should identify how any required investigation and/or remediation will be conducted, and the appropriate government agency to provide regulatory oversight.

1b-21

If you have any questions regarding this letter, please contact me at (714) 484-5380 or email at Johnson.Abraham@dtsc.ca.gov.

Sincerely,



Johnson P. Abraham
Project Manager
Brownfields Restoration and School Evaluation Branch
Brownfields and Environmental Restoration Program - Cypress

kl/sh/ja

cc: See next page.

Mr. Craig Chalfant
August 24, 2017
Page 6

cc: Governor's Office of Planning and Research (via e-mail)
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044
State.clearinghouse@opr.ca.gov

Mr. Dave Kereazis (via e-mail)
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

Mr. Shahir Haddad, Chief (via e-mail)
Schools Evaluation and Brownfields Cleanup
Brownfields and Environmental Restoration Program - Cypress
Shahir.Haddad@dtsc.ca.gov

CEQA# 2016041083

Responses to Comment Letters 1a and 1b

Response 1a-1

The comment is an email transmittal letter from the Department of Toxic Substances Control (DTSC) submitting a comment letter as a PDF attachment and informing the City that the letter will also be sent by regular mail.

This comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 1b-1

The comment states the DTSC has reviewed the subject EIR and provides an introductory statement directly quoting text in the Draft EIR's Project Description.

This comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 1b-2

The comment notes that the EIR states several sites at or adjacent to the project area are contaminated, and states that proper investigation, sampling, and remedial actions should be overseen by the appropriate regulatory agencies prior to the new development or any construction activities.

Draft EIR Section 3.7.2.2, Hazardous Materials at the Four Individual Sites, provided a description of the nature of the potential contamination on each of the four sites and described the testing that had been conducted, the testing that is currently in process to obtain more information regarding the geographical extent of the contamination, and described the remediation work (e.g., excavating and removing the contaminated soils) that would be implemented to address any contamination issues identified. These hazardous materials investigations were overseen by and cleaned up to the satisfaction of regulatory agencies. Each of the four sites is discussed below.

Synergy Oil Field Site

The applicant has conducted a series of soil sampling and tests of various areas where hydrocarbon contamination was identified on the Synergy Oil Field site. The Phase 2 testing was described on Draft EIR p. 3.7-6, and a map of the sampling locations was included at Draft EIR Figure 3.7-2, Sample Locations—Synergy Oil Field and City Property Sites, p. 3.7-7. Note that soil sampling and analysis conducted subsequent to the Draft EIR verified the estimated volume of soil requiring remediation at 24,200 tons. For just the 2016 to 2017 investigations, 49 borings were drilled and 103 samples were analyzed for contaminants. Subsequent to the Draft EIR, the applicant completed the investigation of the Synergy Oil Field site as documented in the following report:

- Advanced Environmental Concepts, AEC 2017f, *Synergy Oil Field Continuing Sample Report Tank Battery Locations HA-3, HA-5 and HA-17, East 2nd Street and Pacific Coast Highway, Long Beach, California*, October 10

To include the post-Draft EIR results, Figure 3.7-2 has been split into Figure 3.7-2a, Sampling Locations, and Figure 3.7-2b, Areas to be Excavated, and includes investigation results subsequent to the Draft EIR.

The purpose of the test program was to identify areas where concentrations of chemicals, especially petroleum hydrocarbons, were detected in the soil, and then to more accurately characterize the geographical extent of the contamination (refer to Draft EIR Section 3.7.3, Regulatory Framework, for discussion of screening levels). Starting with 16 sampling locations, the applicant's consultant, AEC, identified 4 locations on the Synergy Oil Field site where detectable amounts of hydrocarbon concentrations were identified. Additional soil samples at these locations were then collected at 1 foot, 3 feet, and 6 feet below ground surface (bgs). Additionally, soil samples extending out at "staggered" increments of 20 feet in each of the four cardinal directions were collected to further identify the extent of hydrocarbon-impacted soils. Based upon the Phase 2 testing that has been completed, crude oil-type hydrocarbon contamination has been identified at location HA-3 and subsequent step-out samples; at location HA-5 and subsequent step-out sampling; at location HA-12 and subsequent step-out sampling, and at HA-17N-50 (on the City Property site). Draft EIR p. 3.7-27 identified the potential that as much as 24,200 tons of soil would be excavated from these areas if removal is determined by the RWQCB to be the preferred form of remediation. Should excavation be required, the soil would be removed and would be hauled to a disposal facility permitted to accept such waste, such as the Simi Landfill in Simi Valley. Whether and to what extent excavation and disposal would be required, as opposed to other forms of remediation such as on-site bioremediation or capping, is subject to agency direction and oversight. For this area of soil contamination, the RWQCB is the agency with oversight on directing appropriate remediation and mitigation.

Based on soil concentrations obtained during the Phase 2 testing work, the applicant's environmental consultant, AEC, believes that once remediation has been completed, the site could be closed under the RWQCB Low-Threat Policy Closure Guidelines, which became effective during August 2012. The general criteria that must be satisfied by all candidate sites are listed as follows:

- a. The unauthorized release is located within the service area of a public water system;
- b. The unauthorized release consists only of petroleum;
- c. The unauthorized (primary) release from the underground storage tank (UST) (or aboveground storage tank [AST]) system has been stopped;
- d. Free product has been removed to the maximum extent practicable;
- e. A conceptual site model (CSM) that assesses the nature, extent, and mobility of the release has been developed;
- f. Secondary source has been removed to the extent practicable;
- g. Soil or groundwater has been tested for methyl tert-butyl ether (MTBE) and results reported in accordance with Health and Safety Code Section 25296.12; and
- h. Nuisance as defined by Water Code Section 13050 does not exist at the site.

The process to utilize the Low-Threat Closure is well-documented and requires implementation of certain prescribed measures, including groundwater sampling from a minimum of three dedicated groundwater wells and conducting a soil gas survey within the boundaries of the hydrocarbon migration. There are also published Low-Threat Closure comparative standards for soil gas, soil, and groundwater constituents for specific hydrocarbon concentrations that need to be achieved to receive closure. The approximate dimensions of the crude oil-impacted area around HA-3 as determined by the 1-foot sampling is 280 feet long by 100 feet wide by 2 feet deep. The approximate dimensions of the crude oil-impacted area around HA-3 as determined by the 3-foot sampling is 130 feet long by 40 feet wide by 2 feet deep. The approximate dimension of the crude oil-

impacted area around HA-3, as determined by the 5-foot and 6-foot sampling, is 40 feet long by 40 feet wide by 2 feet deep. In addition, the approximate dimension of the crude oil-impacted soil proximal to HA-12 is 30 feet long by 30 feet wide by 1 foot deep. The approximate dimension of the crude oil-impacted soil proximal to HA-17N-50 is 20 feet long by 20 feet wide by 2 feet deep.

As discussed above, if the RWQCB determines that the Low Threat Policy Closure Guidelines is not applicable, some other form of remediation, such as on-site treatment or excavation and removal, would be implemented. The Draft EIR included a “worst-case” analysis assuming that all of the contaminated soils would require removal and transport off site.

Another of the sampling locations, HA-9, was formerly used for disposal of various debris and waste including used oil filters from the horsehead pumping units. This debris has been partially incinerated as a means of waste minimization and surface and near surface soil exhibit elevated concentrations of lead and zinc metals. AEC proposes to remove the metals-impacted soil from an approximate 100 feet by 40 feet by x 2 feet deep area and dispose of the soil and debris at an off-site Class I landfill, such as Waste Management Kettleman Hills. This remediation measure was described on Draft EIR p. 3.7-27.

City Property Site

On the City Property site, AEC has conducted Phase 2 testing at two sampling areas and the results are included in the above-referenced AEC 2017f. The location of the initial sampling site HA-16 was depicted in Draft EIR Figure 3.7-2 (and its update as Figures 3.7-2a and 3.7-2b in Chapter 10, *Draft EIR Revisions*, of this Final EIR) and the test program and results from December 22, 2016, were described on Draft EIR p. 3.7-8. The soil sample collected from HA-16 at a depth of 1 foot bgs, in the extreme northeast portion of the site, was analyzed for TPH in the gasoline, diesel, and oil range, lead and arsenic. The results were either below detection levels or at low concentrations below screening levels (refer to Draft EIR Section 3.7.3, Regulatory Framework, for discussion of screening levels). Additional Phase 2 testing was conducted on August 22, 2017, for the area around the two large storage tanks in the southwest part of the City Property (referred to as HA-17). In this location, similar to the Synergy Oil Field site, AEC sampled along each of the four cardinal directions from the aboveground storage tanks and collected soil samples from each sample point at 1 foot, 3 feet, and 5 feet bgs. Based upon the Phase 2 work conducted at the storage tank area on the City Property site, AEC has determined that there is a small area of visible “crude” hydrocarbons in the area of HA-17N-50 at a depth of 1 foot bgs that indicated concentrations of diesel and oil-range hydrocarbons. However, the samples collected at 3 feet and 5 feet bgs exhibited negligible detections of TPH. Also, the sample at 1 foot bgs indicated primarily non-detectable concentrations of VOCs. Similar to the hydrocarbon impacted soils at the Synergy Oil Field site, the applicant would be required to consult with the RWQCB to determine the best way to effect remediation. Should excavation and removal be required, this work would be included in the 24,200 tons of material described on Draft EIR p. 3.7-27 that would be removed from the site and transported to an appropriate landfill permitted to accept the material, such as the Simi Landfill.

Pumpkin Patch Site

Draft EIR p. 3.7-9 describes the presence of a closed landfill on the western two-thirds of the Pumpkin Patch site, and the history of soil and groundwater testing that has been conducted on the landfill area on the Pumpkin Patch site. If it is determined that excavation of the landfill materials is required, the Draft EIR describes the methods by which the municipal waste would be excavated; how and where wet trash would be dried before it is removed; and how all removed landfill materials would be transported off site on Draft EIR

pp. 3.7-34 through 3.7-35. As discussed in the Draft EIR, the work would include removing the dry trash from the site and hauling to a disposal facility, followed by removing wet trash using a dredging bucket, draining that trash until it can be hauled to a disposal site. Depending upon the testing of the removed trash materials, the landfill materials would be transported to a Class I (hazardous), Class II (designated), or Class III (non-hazardous) disposal facility. It is estimated that approximately 63,000 cubic yards of waste would be exported.

In addition, a soil vapor survey was conducted on the Pumpkin Patch site on July 6, 2017. The sampling and analytical results are provided in the following reports:

- ALS, 2017, *Laboratory Report, Pumpkin Patch*, July 21
- Optimal Technology, 2017, *Pumpkin Patch Soil Vapor Investigation Letter Report*, July 7

The detected chemicals include methane, various sulfur compounds, fuel compounds (gasoline, benzene, toluene, ethylbenzene and xylenes), chlorinated compounds (tetrachloroethene [PCE], trichloroethene [TCE], and dichlorodifluoromethane), cyclohexane, 4-methyl-2-pentanone, and 2-butanone (also known as methyl ethyl ketone [MEK]). The presence of these compounds indicate further action will be needed. The potential actions would be either to remove or cap the landfill. If removed, an Excavation Management Plan would be prepared and implemented, which would remove the contaminants and eliminate the potential for vapor intrusion into buildings. If capped, a cap would need to be designed with a vapor intrusion study to verify vapor would not enter buildings above air quality standards.

LCWA Site

Phase II Environmental Site Assessment (ESA) work was conducted in 2004 and described in the Phase II ESA Alamitos EPTC Parcel 3-4 report. The report was prepared by CH2M Hill on behalf of Southern California Edison, the owner of the Los Cerritos Wetlands Authority (LCWA) site at that time. The results of the CH2M Hill report were described on Draft EIR p. 3.7-11, and incorporated by reference. A copy of this report is on file with the City as part of the Administrative Record.

The report noted that as part of the Phase II ESA, 13 direct-push soil borings were advanced at the site. In addition, soil samples were collected from an apparent debris pit area. A total of 47 soil samples were collected for laboratory analysis. Soil samples were collected from multiple depths (0.5 foot, 5 feet, and 10 feet bgs) and analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals and chlorinated pesticides (including polychlorinated biphenyls [PCBs] at one location, in the reported drum storage area). For background metal analyses, soil samples from three nearby locations were also collected.

Based on the results of the site investigation, CH2M Hill made the following conclusions:

- “Overall, VOC, SVOC, chlorinated pesticide, and PCB concentrations did not exceed industrial PRGs, total threshold limit concentrations (TTLC), and 10 times soluble threshold limit concentration (STLC), screening criteria in the majority of the soil and soil gas samples collected at the Site; and the soil appears to be minimally impacted.
- “Arsenic was the only analyte for which concentrations exceeded the industrial preliminary remediation goals (PRGs). However, it should be noted that, in California, background concentrations of several metals, particularly arsenic, often exceed industrial PRGs, as reported by the Kearney Foundation Special Report on Background Concentrations of Trace and Major Elements in California

Soils (1996). One soil sample, collected at 5 feet bgs and at a location considered representative of background conditions, exhibited a lead concentration that exceeded 10 times the STLC.

- “Lead concentration in one sample and nickel and vanadium concentrations in another sample exceeded the TTLC screening criteria. However, concentrations of lead, nickel, and vanadium for the deeper samples at these two locations were below the TTLC screening criteria.
- “Soil gas concentrations for VOCs did not exceed the conservative shallow soil gas environmental screening levels (ESLs) for the commercial/industrial land use scenario published by the San Francisco Bay Area Regional Water Quality Control Board (RWQCB) (July 2003, Updated February 2004). Thus, the VOCs detected in soil gas samples would not pose a significant impact to indoor air at a future on-site building.

“Hydrogen sulfide gas was not detected in the 10 soil gas samples (including one duplicate) collected at the Site.

“Methane concentrations in soil gas samples were several orders of magnitude below the lower explosive limit (LEL) of 5 percent (50,000 parts per million [ppm]).

- “No VOCs or SVOCs were detected in groundwater samples collected at the Site.”

In 2016 and 2017, AEC conducted additional Phase II investigations at the LCWA site (refer to Draft EIR p. 3.7-11). AEC used a combination of a pick and hand auger to collect the soil samples from the prescribed depths of 2 feet bgs proximal to SB-7 and 1 foot bgs proximal to SB-8. The soil samples were analyzed for the metals arsenic, nickel, and vanadium by EPA Method 6010B from the SB-7 step-outs and for the metals arsenic and lead by EPA Method 6010B in the SB-8 step-outs. The analytical results for the four soil samples collected proximal to SB-7 and four soil samples collected proximal to SB-8 were compared to the May 2016 Industrial-Use Regional Screening Levels (RSLs) and also to the TTLC criteria, which is instrumental in identifying whether a metal is a California hazardous-classified waste for landfilling purposes. The metals of concern (arsenic, vanadium, lead, and nickel) did not exceed their comparative standard with the exception of arsenic.

Arsenic is a naturally occurring metal in California soils and is problematic in evaluating human health risk since the risk-based soil concentration can be 100 times below typical ambient concentrations. As discussed on Draft EIR p. 3.7-6, the California Department of Toxic Substances Control (DTSC) established a regional background arsenic concentration in soil that can be used as screening criteria for sites in Southern California (Chernoff, Bosan, and Oudiz; DTSC 2006). The term “background” refers collectively to both naturally occurring and anthropogenic concentrations in shallow soil. Data obtained for this study were derived from completed Preliminary Endangerment Assessments (PEAs) for proposed school sites during the 2000s from studies conducted in Los Angeles, Orange, Riverside, San Bernardino and San Diego counties. Since Los Angeles County had the largest number of sites tested (19 school sites with 1,097 samples) this data served as the model for the statistical derivation of “background” arsenic. The statistical analysis resulted in an upper-bound arsenic concentration of approximately 12 mg/kg; the derivation for the other counties having a smaller dataset also indicated an upper-bound background of 12 mg/kg. Therefore, although the on-site arsenic results exceeded their comparative RSL of 0.39 mg/kg, all samples analyzed for arsenic (ranging between 4.9 mg/kg to 12 mg/kg) were within the acceptable background range in California soils of 1 to 12 mg/kg; therefore, would not be subject to regulatory action.

Based on the absence of regulatory “actionable” concentrations of arsenic, lead, nickel, and vanadium collected from “step-out” samples proximal to prior boring locations SB-7 and SB-8, AEC recommended that

the prior elevated results from the CH2M Hill investigation of December 2004 be considered an anomaly requiring no further investigation and/or remediation. In addition, CH2M Hill collected soil samples at bracketed depths around the samples exhibiting these anomalous results and the levels were within what can be considered normal “background” range.

Hazardous Building Materials

The analysis in Impact HAZ-1 in the Draft EIR also discusses that tanks, pipelines, and an existing office building to be repurposed as a visitors center may contain asbestos-containing materials (ACM) and/or lead-based paint (LBP), given the age of the structures. If these materials are to be disturbed during the demolition and/or relocation, the management of ACM and LBP in building materials would be regulated by the South Coast Air Quality Management District (SCAQMD) under Rule 1403 for the removal and/or renovation of ACM and under 8 CCR 1532.1 for LBP.

Nearby Sites

Nearby sites under investigation for hazardous materials releases are discussed in Draft EIR Section 3.7.2.3, Hazardous Materials at Nearby Sites, and analyzed under Impact HAZ-3. As described therein, there are three environmental cases identified within a 0.25-mile radius from the project site: Termo Oil Site; Former Exxon #7-3047; and Former Tosco – 76 Station #5379. However, the extent of contamination for all three cases are confined to the individual properties. Ongoing and proper investigation, sampling, and remedial actions for these sites are being conducted by the individual property owners of those sites in accordance with regulatory oversight from the RWQCB.

Response 1b-3

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, p. 3.7-1, and follows this text with three questions, which are discussed in Responses 1b-4 through 1b-6. In addition, some of the subsequent DTSC comments refer back to the information requests of Comments 1b-4 through 1b-6.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 1b-4

The comment requests the identification of the regulatory agencies that approved previous remediation at each of the four sites that comprise the project.

Where identified, previous remediation activities conducted at the four sites over the years were overseen by a variety of regulatory agencies including the U.S. Environmental Protection Agency (USEPA) for PCB remediation as described on Draft EIR pp. 3.7-4 and 3.7-8; LARWQCB for post-closure monitoring of landfills as described on Draft EIR pp. 3.7-4 and 3.7-10 and Draft EIR Appendix F; and LARWQCB or the City of Long Beach Hazardous Materials Management Department for petroleum hydrocarbons spills (Draft EIR Appendix F). As noted above in Response 1b-2, the LARWQCB is overseeing the cleanup of petroleum hydrocarbon contaminated soil at the Synergy Oil Field and City Property sites. Upon their review and approval of the most recent report, the contaminated soil would be excavated and disposed of at a disposal facility permitted to accept the waste.

Response 1b-5

The comment requests that potential vapor intrusion to in-door air associated with contamination be investigated, if soil or groundwater is impacted.

As explained in Draft EIR Chapter 2, *Project Description*, Section 2.3.2, Existing Land Management and Site Conditions, the only existing structure with workers on the project site is the office building on the Synergy Oil Field site, which would be relocated and repurposed as a visitor center. As discussed in Response 1b-2, the nature and extent of petroleum hydrocarbon affected soil has been completed. Upon the review and approval of the most recent report, the contaminated soil will be excavated and disposed of at a disposal facility permitted to accept the waste. Once removed, the contamination source would no longer be present and there would be no potential for vapor intrusion.

As explained in the analysis provided under Impact HAZ-1 and Impact HAZ-3 in the Draft EIR, investigation of site conditions is ongoing at the Pumpkin Patch site. The result of those investigations and associated cleanups will inform whether vapor intrusion to indoor air for future occupied structures is an issue requiring further investigation. As discussed in Response 1b-2, a soil vapor survey was conducted on the Pumpkin Patch site on July 6, 2017. The presence of various chemicals indicate further action will be needed. The potential actions would be either to remove or cap the landfill. If removed, an Excavation Management Plan would be prepared and implemented, which would remove the contaminants and eliminate the potential for vapor intrusion into buildings. If capped, a cap would need to be designed with a vapor intrusion study to verify vapor would not enter buildings above air quality standards. The remediation efforts would be completed prior to commencement of construction.

Response 1b-6

The comment states that DTSC was unable to evaluate whether vapor sampling and/or potential vapor intrusion risk was adequately addressed, as there was a lack of relevant information. The commenter requests that detailed information be provided.

As explained in Draft EIR Section 3.7, *Hazards and Hazardous Materials*, p. 3.7-11, and summarized in Response 1b-2, vapor sampling has been conducted at the dump pit on the LCWA site. The results indicated VOCs did not exceed the conservative shallow soil gas ESLs (see Draft EIR p. 3.7-21 for description of screening or action levels) for commercial/industrial land use scenarios. Hydrogen sulfide gas was not detected and methane concentrations in soil gas samples were several orders of magnitude below the lower explosive limit of 5 percent (50,000 parts per million [ppm]).

As described in Response 1b-2, a soil vapor survey was conducted on the Pumpkin Patch site on July 6, 2017. The analytical testing results, investigation status, and future planned actions are discussed in Responses 1b-2 and 1b-5. Additionally, as discussed in Impact HAZ-3, Mitigation Measures HAZ-1 and HAZ-2 would be implemented in the event that hazardous materials are to be removed.

No vapor sampling or intrusion studies have been conducted for the Synergy Oil Field and City Property sites. As explained in Response 1b-2, where identified, petroleum hydrocarbon affected soil is being removed, which would remove the contamination source and, thus, also the source of vapors, if any. In addition, the City Property site would not have habitable structures and vapor intrusion would not be an issue.

Response 1b-7

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, that states that commercial and industrial land uses include former and current uses that involve the use or storage of fuel, lubricants and oil, solvents, and other hazardous materials. The commenter then refers the reader to the previous Comments 1b-4 through 1b-6, which request further information on regulatory agencies that approved this remediation, vapor intrusion to in-door air associated with soil or groundwater contamination, and information on any vapor sampling and/or vapor intrusion risk.

The text the comment refers to generally describes commercial and industrial land uses in the project vicinity and not specific sites. The discussion of the project site is provided in Section 3.7.2.2, Hazardous Materials at the Four Individual Sites, and as described therein, no gasoline stations have operated on any of the four sites. Nearby sites, whose land uses include former and current gasoline service stations, are discussed in Draft EIR Section 3.7.2.3, Hazardous Materials at Nearby Sites.

Response 1b-8

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, that describes the landfills found on the project site. The comment then refers the reader to Comments 1b-4 through 1b-6, which request further information on regulatory agencies that approved this remediation, vapor intrusion to in-door air associated with soil or groundwater contamination, and information on any vapor sampling and/or vapor intrusion risk.

The nature and extent of the closed landfills and dump pit that overlap the four individual sites are discussed in Draft EIR Section 3.7.2.2, Hazardous Materials at the Four Individual Sites. As described therein, the closed Studebaker/Loynes Disposal Site or City Dump and Salvage #4 is located along the northeastern portion of the Synergy Oil Field site. This landfill is buried under 25 feet of fill as described on Draft EIR p. 3.7-4. The surficial grading proposed as a part of the habitat restoration would not be deep enough to disturb this buried closed landfill. Post-closure monitoring was overseen by the RWQCB until 2012 when the case was closed indicating that no further threat to human health or the environment remained. Because of the depth of the landfill, the proposed project would not encounter or disturb these buried landfill materials. In addition, no habitable structures would be constructed on top of this former landfill.

In addition, there is a portion of the former Los Angeles County Flood Control Dump, which may have extended onto the southwestern corner of the Synergy Oil Field site. However, as explained on Draft EIR p. 3.7-4, only vegetation removed from the banks of the San Gabriel River was disposed of at this site and, thus, no hazardous materials would be present. Therefore, there is no potential for encountering contamination and, thus, no remediation efforts have occurred at this location.

As discussed on Draft EIR pp. 3.7-9 and 3.7-10 and in Response 1b-2, there is a closed landfill at the Pumpkin Patch site that has been investigated and, while some chemicals in soil and groundwater were found to exceed ESLs (see Draft EIR p. 3.7-21 for description of screening or action levels), they would not exceed hazardous waste levels (see Section 3.7.3, Regulatory Framework, for discussion of regulations governing hazardous waste). Monitoring of groundwater is continuing under the jurisdiction of the RWQCB. As discussed in the Draft EIR analysis provided under Impact HAZ-3, the landfilled materials buried at the Pumpkin Patch site are currently being investigated to inform the construction of the building foundation and oil well cellars. As previously discussed in Response 1b-2, vapor sampling was conducted at the Pumpkin Patch site on July 6,

2017. The analytical testing results, investigation status, and future planned actions are discussed in Responses 1b-2 and 1b-5. The presence of various chemicals indicate further action will be needed. The potential actions would be either to remove or cap the landfill. If removed, an Excavation Management Plan would be prepared and implemented, which would remove the contaminants and eliminate the potential for vapor intrusion into buildings. If removed, the Applicant would be required to implement Mitigation Measures HAZ-1 and HAZ-2, which would reduce any potential impacts related to the release of or exposure to hazardous materials in soil, soil vapor, landfilled materials, and/or groundwater to a less-than-significant level. If capped, a cap would need to be designed with a vapor intrusion study to verify vapor would not enter buildings above air quality standards and impacts would be less than significant.

As discussed on Draft EIR p. 3.7-11, there is a dump pit on the LCWA site that received waste cement and asphalt debris in the past. Early investigations were conducted by the California State Coastal Conservancy with technical support from the DTSC (see Draft EIR Appendix F8). Soil sampling investigations indicated that VOCs, semivolatile compounds, and methane were not present above screening levels. The sampling investigations indicated that arsenic, lead, nickel and vanadium were present at elevated concentrations in soil at two locations on the LCWA site. Verification sampling of these locations indicated that the concentrations of these substances were below screening levels or background levels. Background levels are the naturally occurring concentrations of chemicals in the environment. The vapor sampling results were previously discussed in Response 1b-6, which noted vapor intrusion would not be an issue.

Response 1b-9

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, that describes the historic agricultural use of the Los Cerritos Wetlands. The comment then describes that though organochlorine pesticides may have degraded over time, arsenic from arsenic-based pesticides may be present in the soil on the project site. The comment recommends investigation and mitigation to address potential arsenic impact to human health and environment.

As discussed in Draft EIR Section 3.7.2.2, Hazardous Materials at the Four Individual Sites, p. 3.7-6, arsenic has been analyzed under various investigations at all four individual sites. Arsenic was detected in some samples; however, as described in Response 1b-2 the concentrations were below the regional background arsenic level established by DTSC. Therefore, no further investigation is warranted.

Response 1b-10

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, that describes the Phase 1 Environmental Site Assessment prepared for the Synergy Oil Field site and that the Phase 1 Environmental Site Assessment included discussion of the landfill sites, PCB cleanup, and other spills and cleanups. In addition, the comment notes that the EIR states that further investigation and remediation is currently underway at the Synergy Oil Field site. The comment then refers the reader to Comments 1b-4 through 1b-6, which request further information on regulatory agencies that approved this remediation, vapor intrusion to in-door air associated with soil or groundwater contamination, and information on any vapor sampling and/or vapor intrusion risk.

This general comment regarding previous and ongoing investigations at the Synergy Oil Field site was previously addressed in Responses 1b-2 through 1b-9.

Response 1b-11

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, that describes previous spills or releases that occurred on the Synergy Oil Field site and/or City Property site and that site investigations and cleanups were conducted from 1992 through 2004. The comment then refers the reader to Comments 1b-4 through 1b-6, which request further information on regulatory agencies that approved this remediation, vapor intrusion to in-door air associated with soil or groundwater contamination, and information on any vapor sampling and/or vapor intrusion risk.

This comment regarding previous spills/releases, investigations, and cleanups at the Synergy Oil Field and City Property sites was previously addressed in Responses 1b-2 through 1b-9.

Response 1b-12

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, that describes that a soil sample from the City Property site was collected and tested for TPH in gasoline, diesel, oil range, lead, and arsenic. Results showed that that arsenic was detected above screening levels but below regional background levels at the City Property site and additional testing is proposed. The comment then refers the reader to Comments 1b-4 through 1b-6, which request further information on regulatory agencies that approved this remediation, vapor intrusion to in-door air associated with soil or groundwater contamination, and information on any vapor sampling and/or vapor intrusion risk.

This general comment regarding previous and recently completed investigations at the City Property site was previously addressed in Responses 1b-2, 1b-6, 1b-8, and 1b-9.

Response 1b-13

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, that describes the historic oil production uses on the Pumpkin Patch site and the potential for future grading to encounter former sumps on the site. The comment then refers the reader to Comments 1b-4 through 1b-6, which requests further information on regulatory agencies that approved this remediation, vapor intrusion to in-door air associated with soil or groundwater contamination, and information on any vapor sampling and/or vapor intrusion risk.

As discussed in Draft EIR Section 3.7, *Hazards and Hazardous Materials*, p. 3.7-9, two sumps adjacent to the oil well were removed by 1947. This date precedes any sampling requirements. Although no additional sumps are known to be present, additional unknown sumps might be present. If additional sumps are discovered during construction, the sumps would be investigated and managed in accordance with all applicable regulations as required by implementation of Mitigation Measures HAZ-1 and HAZ-2.

Response 1b-14

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, that describes current and past conditions on the LCWA site. The comment recommends proper characterization and/or remediation for this site under an appropriate government agency's regulatory oversight.

This comment was previously addressed in Responses 1b-2, 1b-6 and 1b-8.

Response 1b-15

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, that describes soil testing conducted on the LCWA site and the results of those tests. The comment then refers the reader to Comments 1b-4 through 1b-6, which request further information on regulatory agencies that approved this remediation, vapor intrusion to in-door air associated with soil or groundwater contamination, and information on any vapor sampling and/or vapor intrusion risk.

This comment regarding the LCWA dump pit, or landfill, was previously addressed in Responses 1b-2 and 1b-3.

Response 1b-16

The comment states that Draft EIR Table 3.7-1, Environmental Cases Identified within 0.25 Mile of the Project Area, p. 3.7-13, contains a list of active assessment or remediation in progress at three of the neighboring sites. The comment then refers the reader to Comments 1b-4 through 1b-6, which request further information on regulatory agencies that approved this remediation, vapor intrusion to in-door air associated with soil or groundwater contamination, and information on any vapor sampling and/or vapor intrusion risk.

This comment regarding neighboring environmental cases was previously addressed in Response 1b-2.

Response 1b-17

The comment states that if the project includes discharging wastewater into a storm drain then a National Pollutant and Discharge Elimination System (NPDES) permit would be required from RWQCB.

Operation of the proposed project would not include the discharge of wastewater to storm drains. However, during construction, dewatering that may be required to be discharged to storm drains, which does require adherence to applicable regulations including an NPDES permit as stated in Mitigation Measure HAZ-2.

Response 1b-18

The comment quotes text from Draft EIR Section 3.7, *Hazards and Hazardous Materials*, that describes that ACMs and LBPs may be present in existing structures and in pipelines. If the project includes building modifications/demolitions, then these ACMs and LBPs should be addressed in accordance with all applicable and relevant laws and regulations.

This comment was previously addressed in Response 1b-2.

Response 1b-19

The comment recommends evaluation, proper investigation, and/or mitigation of on-site areas with current or historical PCB-containing transformers.

As discussed in EIR Appendix F4, all transformers within the SCE power distribution network suspected of containing PCBs in concentrations exceeding 50 ppm were removed and replaced by 1987. Manufacturing of PCB-containing electric power transformers was discontinued in 1984. Therefore, this discussion was not carried into the Draft EIR, and there is no need for additional evaluation.

Response 1b-20

The comment is concerned with the disposal of contaminated soil and advises that contaminated soil must be disposed of in accordance with all applicable and relevant laws and regulations. In addition, if the project proposes to import soil to backfill the excavated areas, proper evaluation and/or sampling of this soil should be conducted to make sure it is free of contamination.

As discussed in the analysis under Impact HAZ-1 in the Draft EIR, contaminated soil would be managed in accordance with all applicable and relevant laws and regulations. Imported fill would be acquired from sources providing clean fill free of contaminants and, thus, additional evaluation would not be necessary. In addition, implementation of Mitigation Measures HAZ-1 and HAZ-2 would ensure that any encountered contaminated soil currently present on the project site would be handled consistent with applicable and relevant laws and regulations.

Response 1b-21

The comment is concerned with contaminated soil that could potentially be identified during construction/demolition in areas that has not previously been investigated. The comment requests the EIR identify how any required investigation and/or remediation will be conducted if such soil is determined to be present during these activities.

As discussed in the analysis under Impact HAZ-3, the Draft EIR includes Mitigation Measures HAZ-1 and HAZ-2, which would describe the procedures used to address worker health and safety, and manage contaminated materials if encountered during construction.

9.2.1.2 State of California Department of Transportation (Caltrans), September 6, 2017

Comment Letters 2a and 2b

Comment Letter 2a

Subject: FW: Los Cerritos Wetlands Oil Consolidation and Restoration Project
Attachments: LA-2017-01029-Los Cerritos Wetlands Oil Consolidation and Restoration Project.pdf

From: Edmonson, Miya R@DOT [<mailto:miya.edmonson@dot.ca.gov>]
Sent: Wednesday, September 06, 2017 1:47 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Subject: Los Cerritos Wetlands Oil Consolidation and Restoration Project

Good Afternoon Mr. Chalfant,
Attached please find Caltrans' comment letter for the Los Cerritos Wetlands Oil Consolidation and Restoration Project. The hardcopy will be sent out later today

Thank you,

Miya Edmonson

Associate Transportation Planner
Caltrans District 7, IGR/CEQA Branch
(213) 897-6536 Office
(213) 897-1337 Fax

2a-1

Comment Letter 2b

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7- OFFICE OF REGIONAL PLANNING
100 S. MAIN STREET, SUITE 100
LOS ANGELES, CA 90012
PHONE (213) 897-6536
FAX (213) 897-1337
TTY 711
www.dot.ca.gov



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September 6, 2017

Mr. Craig Chalfant
Planning Bureau, Development Services Dept.
City of Long Beach
333 West Ocean Blvd., 5TH Floor
Long Beach, Ca 90802

RE: Los Cerritos Wetlands Oil Consolidation
and Restoration Project
Vic. LA-1
SCH#2016041083
GTS# 07-LA-2017-01029-ME-DEIR

Dear Mr. Chalfant:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project includes the relocation of specific oil facilities currently located on the Synergy Oil Field and City-owned property to two properties in close proximity to the Synergy Oil Field and the removal of existing oil wells from the Synergy Oil Field and City Property sites.

2b-1

Caltrans submitted comments on the Notice of Preparation for this project dated May 31, 2016, where we expressed concerns with potential transportation impacts to State facilities. Please reference of comment letter that has been attached for your convenience.

2b-2

In the Spirit of mutual cooperation, Caltrans staff is available to work with your planners and traffic engineers for this project, if needed. If you have any questions regarding these comments. Please contact project coordinator Ms. Miya Edmonson, at (213) 897-6536 and refer to GTS# LA-2017-01029ME.

2b-3

Sincerely,

DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

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STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF TRANSPORTATION PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-9140
FAX (213) 897-1337
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May 31, 2016

Mr. Craig Chalfant
Planning Bureau, Development Services Dept.
City of Long Beach
333 West Ocean Blvd., 5th Floor
Long Beach, CA 90802

RE: Los Cerritos Wetlands Restoration
and Oil Consolidation Project (NOP)
SCH. #2016041083; IGR #1605457ME
Vic.: LA-1/PM 0.596, LA-22/PM0.01
LA-405/PM 0.495

Dear Mr. Chalfant:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project to implement a comprehensive wetlands restoration project, which will restore portions of a privately owned oil field through creation of a wetlands mitigation bank, while allowing operation of the oil facilities to continue.

2b-4

Construction of the proposed project may have a potential significant impact on the transportation system through the hauling of excavated materials and debris, transportation of construction equipment and materials, and travel of construction workers to and from the project sites.

2b-5

Although project operation will introduce new trips due to the visitors' center and pedestrian trail, some trips are anticipated to occur during peak commuting hours. The potential for the resulting increase in the use of the area's transportation facilities that could exceed roadway and transit system capabilities should be evaluated in the EIR.

2b-6

Based on the information contained in the IS and to assist in evaluating the impacts of this project on State transportation facilities, a traffic study should be prepared prior to preparation of the Draft Environmental Impact Report (DEIR). Please refer the project's traffic consultant to Caltrans' Guide for the Preparation of Traffic Impact Studies website, which can be accessed at http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf.

2b-7

The traffic study should analyze the following information:

2b-8

1. Truck trips distribution/assignment on and to SR-1, SR-22, I-710, I-406 and I-605.
2. Traffic impacts on SR-1 from Seal Beach Blvd. to N Lakewood Blvd. with all significantly

2b-9


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to enhance California's economy and livability"*

Mr. Craig Chalfante
May 31, 2016
Page 2 of 2

- impacted streets, crossroads and controlling intersections, as well as analysis of existing condition and truck hauling/construction periods. ↑ 2b-9 (cont.)
3. A truck/traffic construction management plan is be needed for this project on SR-1. Please submit to Caltrans for review. 2b-10
 4. Traffic volume counts to include anticipated AM and PM peak-hour volumes. 2b-11
 5. Level of service (LOS) during hauling/trucking periods. 2b-12
 6. A brief traffic discussion showing ingress/egress from the staging area or construction site, turning movements, and a directional flow for construction trips and maintenance vehicle trips. 2b-13
 7. Discussion of mitigation measures appropriate to alleviate anticipated traffic impacts, including sharing of mitigation costs. 2b-14
 8. The Congestion Management Program (CMP) to be used as guidance for monitoring system and not to exclude analysis on non CMP locations. On PCH between Seal Beach Blvd. to N Lakewood Blvd., I-710 between PCH and Pico Ave., I-405 between I-605 and I-710, SR-22 between SR-605 and PCH. 2b-15
 9. Off-ramp queuing analysis is needed if PCE (Passenger Car Equivalent) potentially will lead to safety issues to the mainline. The queuing analysis should be prepared based on HCM (Highway Capacity Manual). Please consult with Caltrans for details. 2b-16
 10. Since the project site is next to SR-1, please be reminded that any work performed within State right-of-way will require an Encroachment Permit from Caltrans. Any modifications to State facilities must meet all mandatory design standard and specifications. 2b-17
- We look forward to reviewing the traffic study. We expect to receive a copy from the State Clearinghouse when the DEIR is completed. However, to expedite the review process, and clarify any misunderstandings, you may send a copy in advance to the undersigned. 2b-18

If you have any questions, please feel free to contact Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 160547ME/AL/DA.

Sincerely,



DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

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Responses to Comment Letters 2a and 2b

Response 2a-1

The comment is an email transmittal letter from the State of California Department of Transportation (Caltrans) submitting a comment letter as a PDF attachment and informing the City that the letter will also be sent by regular mail.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 2b-1

The comment is an introductory statement regarding the submittal of comments from Caltrans District 7 on the Draft EIR. The introductory statement describes the proposed project as the relocation of oil facilities located on the Synergy Oil Field and the City Property sites to two properties in close proximity and the removal of the oil wells from the Synergy Oil Field and the City Property sites.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 2b-2

The comment states that Caltrans submitted comments on the NOP for the proposed project, dated May 31, 2016, where they expressed concerns about the potential transportation impacts on State facilities. The comment indicates that the May 31, 2016, comment letter is attached.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. The Caltrans letter dated May 31, 2016, was included in Draft EIR Appendix A2. In addition, these comments are addressed under Responses 2b-4 through 2b-18.

Response 2b-3

The comment indicates that Caltrans staff is available to work with the City of Long Beach planners and traffic engineers for the proposed project and provides the contact information for Ms. Miya Edmonson, the Caltrans coordinator for the proposed project.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 2b-4

The comment is an introductory statement that provides thanks for including Caltrans in the environmental review process for the proposed project.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 2b-5

The comment asserts that the construction of the proposed project may have a potential significant impact on the transportation system with the hauling of excavated materials and debris, transportation of construction equipment and materials, and the travel of construction workers to and from the project sites.

An evaluation of potential construction-related transportation impacts is provided in the Draft EIR Section 3.15, *Transportation and Traffic*, Section 3.15.4.3, Impact Evaluation, beginning on p. 3.5-10. The evaluation concludes that construction impacts would be less than significant. In addition, the City is proposing that the Applicant prepare and implement a Construction Traffic Management Plan as a Condition of Approval, which will serve to minimize any potential construction-related disruptions to traffic in the vicinity of the project site. Details of the CTMP are provided on Draft EIR p. 3.15-11.

Response 2b-6

The comment describes that the project operation will introduce new trips due to the visitors center and pedestrian trail and that some trips will occur during peak commuting hours. The comment requests that the potential increase in the use of the area's transportation facilities that could exceed roadway and transit system capabilities be evaluated in the Draft EIR.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the request that the potential increase in use of the area's transportation facilities be evaluated in the Draft EIR, the City considered Caltrans' comment on the NOP and evaluated the potential increase in traffic that may result from implementation of the project in Draft EIR Section 3.15, *Transportation and Traffic*.

Response 2b-7

The comment requests that, to assist in evaluating the impact of the proposed project on State transportation facilities, a traffic study be prepared prior to the preparation of the Draft EIR. The comment refers to the "Caltrans' Guide for the Preparation of Traffic Impact Studies" website.

Draft EIR Section 3.15, *Transportation and Traffic*, Section 3.15.1, Introduction, p. 3.15-1, states that "due to the limited nature of the project development and minimal additional traffic trips that would be added to the project area (if any), the City determined that a full traffic impact analysis (traffic study) was not required for the proposed project." The Section 3.15.4.2, Methodology, discussion on p. 3.15-9 states that "based on the City's traffic study guidelines, the City has established a screening criterion of 50 or more net new peak-hour trips at which point projects that exceed that criterion are required to be assessed based on the City's guidelines. Projects that generate less than that criterion are determined to have a less-than-significant impact." The Methodology discussion on p. 3.15-9 goes on to state that "... on April 21, 2016, the City sent an NOP to responsible, trustee, and federal agencies, as well as to organizations and individuals potentially interested in the proposed project to identify the relevant environmental issues that should be addressed in the EIR. Comments received that are relevant to transportation and circulation include consideration of how the construction and operation of the proposed project may affect peak-hour traffic conditions on nearby roadways, intersections, and freeway off-ramps, as well as detailed information on how construction vehicles would access the project site and how construction activities would be managed to minimize interruptions to nearby transportation facilities."

Response 2b-8

The comment provides an introductory statement that the traffic study should address the information that it lists below. Item 1 recommends the following should be analyzed: truck trip distribution/assignment on and to [State Route] SR-1, SR-22, I-710, I-406 [sic] and I-605.

The comment was previously addressed in Response 2b-7.

Response 2b-9

The comment recommends the following should be analyzed: traffic impacts on SR-1 from Seal Beach Boulevard to N. Lakewood Boulevard with all significantly impacted streets, crossroads, and controlling intersections; and existing condition and truck hauling/construction periods.

Refer to Response 2b-7 for a discussion of the City's traffic study guidelines and the City's established screening criterion for the preparation of a traffic impact analysis.

Draft EIR Section 3.15, *Transportation and Traffic*, pp. 3.15-10 to 3.15-13, provides the impact evaluation during construction and operation of the proposed project based on the City's traffic study guidelines and the screening criterion for the preparation of a traffic impact analysis. Draft EIR Section 3.15.4.3, Impact Evaluation, Construction, p. 3.15-10, states that "the project components that would add temporary construction-related traffic to nearby roadways would occur over the course of the construction period at the Synergy Oil Field, City Property, Pumpkin Patch, and Los Cerritos Wetlands Authority (LCWA) sites." The analysis of the construction period indicates that: "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 [SR-1], 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." The analysis concluded: "... because the temporary construction trips generated by the proposed project would occur outside of the peak traffic hours, and the Applicant would avoid sensitive areas and/or areas of concern with respect to nearby roadway operations, construction of the proposed project would result in a less-than-significant impact to operating conditions for the existing area roadway system." In addition, although the Draft EIR concluded that the construction impacts of the proposed project would be less than significant, the Draft EIR indicated that the City proposes that a Condition of Approval requiring submittal of a Construction Traffic Management Plan (CTMP) to the City's Development Services Department for review and that the issuance of demolition, grading, or building permits is subject to the approval of the CTMP. Draft EIR p. 3.15-11 states the following requirements for the CTMP:

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.

Response 2b-10

The comment recommends that a truck/traffic construction management plan for SR-1 is needed for the proposed project.

Refer to Response 2b-9 for a discussion of the traffic analysis methodology used for the analysis of construction activities for the proposed project.

Response 2b-11

The comment recommends traffic volume counts include anticipated A.M. and P.M. peak-period volumes.

Refer to Response 2b-9 for a discussion of the traffic analysis methodology used for the analysis of construction activities for the proposed project.

Response 2b-12

The comment recommends analysis of level of service (LOS) during hauling/trucking period.

Refer to Response 2b-9 for a discussion of the traffic analysis methodology used for the analysis of construction activities for the proposed project.

Response 2b-13

The comment recommends a brief traffic discussion showing ingress/egress from the staging area or construction site, turning movements, and a directional flow for construction trips and maintenance vehicle trips.

Refer to Response 2b-9 for a discussion of the traffic analysis methodology used for the analysis of construction activities for the proposed project.

Response 2b-14

The comment recommends the provision of a discussion of mitigation measures as appropriate to alleviate anticipated traffic impacts including the sharing of mitigation costs.

Refer to Response 2b-9 for a discussion of the analysis of the potential for construction-related impacts.

Draft EIR Section 3.15, *Transportation and Traffic*, Impact Evaluation, Operation, p. 3.15-12, concluded that "... 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. Therefore, the operation of the proposed project would result in a less-than-significant impact to operating conditions for the existing area roadway system." Therefore, the Draft EIR indicated that no mitigation measures were required.

Response 2b-15

The comment recommends the Congestion Management Program (CMP) to be used as the guidance for the monitoring system and not to exclude analysis on non-CMP locations. The comment references PCH [SR-1] between Seal Beach Boulevard to N. Lakewood Boulevard, I-170 between PCH and Pico Avenue, I-405 between I-605 and I-710, and SR-22 between SR-605 and PCH.

Refer to Response 2b-9 for a discussion of the analysis of the potential for construction-related impacts.

Refer to Response 2b-14 for a discussion of the analysis of the potential for operations-related impacts.

Draft EIR pp. 3.15-12 and 3.15-13 provide a discussion of the CMP related to the analysis of the construction and operation of the proposed project. The analysis of construction concluded that "... because these trips would occur outside of the AM and PM peak traffic hours, construction of the proposed project would result in a less than significant impact to CMP facilities. The implementation of Condition of Approval TRA-1, described above under impact discussion TRA-1, would further reduce this less-than-significant construction impact." The analysis of operation concluded that "as stated above in the discussion of Impact TRA-1, implementation of the proposed project would not generate more than 50 trips to a CMP roadway intersection or more than 150 trips to a CMP freeway segment. Therefore, operation of the proposed project would result in a less-than-significant impact to nearby CMP facilities."

Response 2b-16

The comment recommends that an off-ramp queuing analysis is needed if Passenger Car Equivalent (PCE) will potentially lead to safety issues to the mainline. The comment indicates the queuing analysis should be prepared based on the Highway Capacity Manual (HCM). The comment requests that Caltrans be consulted for details.

Refer to Response 2b-9 for a discussion of the analysis of the potential for construction-related impacts.

Refer to Response 2b-14 for a discussion of the analysis of the potential for operations-related impacts.

Response 2b-17

The comment indicates that any work performed within a State right-of-way will require an encroachment permit from Caltrans. The comment also states that any modifications to State facilities must meet all design standard and specifications.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 2b-18

The comment indicates that Caltrans expected to receive the Draft EIR from the State Clearinghouse when it was complete. The comment also indicated that a copy could be sent in advance to the commenter.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. It should be noted that when the Draft EIR was completed and circulated for public review, a copy was provided to Caltrans for its review and consideration.

9.2.1.3 State Clearinghouse, September 7, 2017

Comment Letters 3a and 3b

Comment Letter 3a



EDMUND G. BROWN JR.
GOVERNOR

September 7, 2017

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

Craig Chalfant
City of Long Beach
333 W. Ocean Boulevard, 5th Floor
Long Beach, CA 92802

Subject: Los Cerritos Wetlands Oil Consolidation and Restoration Project
SCH#: 2016041083

Dear Craig Chalfant:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on September 6, 2017, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

3a-1

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

**Document Details Report
State Clearinghouse Data Base**

SCH#	2016041083		
Project Title	Los Cerritos Wetlands Oil Consolidation and Restoration Project		
Lead Agency	Long Beach, City of		
Type	EIR Draft EIR		
Description	The proposed project would implement a wetlands restoration project which will restore a privately owned oil field in the City of Long Beach through creation of a wetlands mitigation bank. The proposed project includes the relocation of specific oil facilities currently located on the Synergy Oil Field and City-owned property tot two properties in close proximity to the Synergy Oil Field and the removal of existing oil wells from the Synergy Oil Field and the City property site.		
Lead Agency Contact			
Name	Craig Chalfant		
Agency	City of Long Beach		
Phone	(562) 570-6357	Fax	
email			
Address	333 W. Ocean Boulevard, 5th Floor		
City	Long Beach	State	CA Zip 92802
Project Location			
County	Los Angeles		
City	Long Beach		
Region			
Lat / Long	33° 45' 34.3" N / 118° 5' 51.92" W		
Cross Streets	6433 E. Second Street, 6701 E. Pacific Coast Hwy, Studebaker and Westminster Ave./Shopkeeper Rd		
Parcel No.	7237-017-010; 7237-017-011, 012, 013, 014, 019, -019-809, -020-043, 044, 045, 903, 904		
Township	Range	Section	Base
Proximity to:			
Highways	Pacific Coast Hwy		
Airports	Joint Forces Base Los Alamitos		
Railways			
Waterways	Los Alamitos Chanel		
Schools	Kettering ES		
Land Use	PD-1/Southeast Area Deveopment and Improvement Plan		
Project Issues	Air Quality; Biological Resources; Coastal Zone; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Landuse; Cumulative Effects; Aesthetic/Visual; Archaeologic-Historic; Sewer Capacity; Soil Erosion/Compaction/Grading; Water Supply		
Reviewing Agencies	Resources Agency; Department of Boating and Waterways; California Coastal Commission; Department of Conservation; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 7; Native American Heritage Commission; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; Air Resources Board, Major Industrial Projects		
Date Received	07/24/2017	Start of Review	07/24/2017 End of Review 09/06/2017

3a-1
(cont.)



Matthew Rodriguez
Secretary for
Environmental Protection



Department of Toxic Substances Control

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, California 90630



Edmund G. Brown Jr.
Governor

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9/6/17
E

August 24, 2017

Mr. Craig Chalfant
Planning Bureau
Development Services Department
City of Long Beach
333 West Ocean Boulevard, 5th Floor
Long Beach, California 90802
craig.chalfant@longbeach.gov

Governor's Office of Planning & Research
AUG 24 2017
STATE CLEARINGHOUSE

DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) FOR LOS CERRITOS
WETLANDS OIL CONSOLIDATION AND RESTORATION PROJECT
(SCH# 2016041083)

Dear Mr. Chalfant:

The Department of Toxic Substances Control (DTSC) has reviewed the subject EIR. The following project description is stated in the EIR: "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 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 individual sites, which are described in detail below, 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 will be operated as a wetlands mitigation bank. 2 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 will relocate the existing office building on the Synergy Oil Field site to another location on the Synergy Oil Field site, repurpose it for use as a visitors center, construct a new parking area and perimeter trail to provide public access to this portion of the Los Cerritos Wetlands."

3a-2

Revised on Requested Factor

Mr. Craig Chalfant
August 24, 2017
Page 2

Based on the review of the submitted document, DTSC has the following comments:

1. The EIR states that several sites at or adjacent to the project area are contaminated with hazardous wastes/substances. Proper investigation, sampling and remedial actions overseen by the appropriate regulatory agencies should be conducted prior to the new development or any construction.
2. The EIR states, "Oil and natural gas production in the vicinity began as early as 1921. Oil production at each of the four individual sites is discussed further below. Oil field production typically includes the extraction, storage, and transportation of oil and natural gas; and the reinjection of produced water back into the production zone. The maintenance of equipment requires the use of oils and greases, solvents, paints, and thinners."
 - a. Identify the name(s) of the regulatory agency(ies) approved the remediation of these four sites.
 - b. If soil or groundwater is impacted, then potential vapor intrusion to in-door air associated with contamination should be investigated.
 - c. DTSC is unable to evaluate whether vapor sampling and/or potential vapor intrusion risk was adequately addressed due to lack of relevant information. Please provide relevant detailed information in the EIR.
3. The EIR states, "Commercial and industrial land uses include former and current gasoline service stations, and other facilities that typically involve the use and storage of fuel, lubricants and oil, solvents, and other hazardous materials." Please see comment #2 above.
4. The EIR further states, "Several of the individual sites that compose the project site have been used in the past as landfills. Depending on the nature of the waste materials disposed of in the landfills, the timing of the landfilling operations (early landfills were typically lightly regulated and unlined), and the level of compliance with regulations, the landfilled waste materials may have included hazardous materials or have generated hazardous materials as the buried waste decomposed; however, based upon preliminary investigations these landfills appear to have been used for limited periods of time for primarily municipal and construction wastes." Please see comment #2 above.
5. The EIR states, "Portions of the Los Cerritos wetlands area, which includes portions of the individual sites, were used for raising cattle and beets in the 1800s and early 1900s. Historical agricultural land uses may have left behind residual levels of fertilizers, pesticides, and herbicides in soils. In addition, fuels, oils, lubricants, and cleaning solvents for farm equipment maintenance may have been released during use or storage on the prior agricultural areas; however,

3a-2
(cont.)

Mr. Craig Chalfant
August 24, 2017
Page 3

considering the length of time since agricultural use was conducted on these individual sites, it is unlikely that residual chemicals associated with agricultural use would be present and natural attenuation would be expected to have degraded most, if not all, of the chemicals down to inert and nonhazardous compounds." Though organochlorine pesticides may have been degraded through natural attenuation, arsenic from arsenic based pesticides, used in the early 1900s, may be present in onsite soil. DTSC recommends investigation and mitigation, if necessary, to address potential arsenic impact to human health and environment.

6. The EIR states, "A Phase I ESA was conducted for the Synergy Oil Field site to identify recognized environmental conditions⁵⁷ (Rincon 2015a). The Phase I report also summarized the results of previous assessments, investigations, and remediation activities. The Synergy Oil Field site is listed on the GeoTracker and EnviroStor websites for the landfill sites and polychlorinated biphenyl (PCB) cleanup; the Phase I ESA included discussion of other spills and cleanups not listed on GeoTracker or EnviroStor websites." The EIR further states that the investigation and remediation are currently underway at the Synergy Oil Field site. Please see comment #2 above.
7. The EIR states, "Four spill/release incidents of oil or grease were documented between 2006 and 2010 on the Synergy Oil Field (and/or City Property) site; all of these spills were reportedly cleaned up with the oversight and approval of regulatory agencies." The EIR further states, "The Phase 1 ESA also noted that various other older site investigations and cleanups were conducted from 1992 through 2004 to assess the extent and concentrations of petroleum hydrocarbons in soil across the site." Please see comment # 2 above.
8. Regarding City Property Site, the EIR states, "As a part of the previously discussed 2016 and 2017 soil investigations conducted on the Synergy Oil Field site, one soil sample was collected at the northeast corner of the City Property site (HA-16 shown in Figure 3.7-2) (AEC 2017b). The sample was tested for TPH in the gasoline, diesel, and oil range; lead; and arsenic. The testing results were either below detection levels (TPH-gasoline) or at low concentrations below screening levels (all other chemicals) (see Appendix F5). Similar to the other testing results, arsenic was detected above screening levels but below regional background levels. Additional testing has been proposed for the area around the two storage tanks in the southern part of the City Property site (see Figure 3.7-2) (AEC 2017d)." Please see comment #2 above.
9. Regarding Pumpkin Patch Site, the EIR states, "Oil production from this site dates to the 1920s and is part of the Seal Beach Oil Field. As listed in Table 2-1 and shown in Figure 2-3, the Pumpkin Patch site has one active and one plugged oil well. As previously discussed, backfilled earthen sumps are anticipated to be adjacent to some wells that would contain produced oil and drilling mud. The

3a-2
(cont.)

Mr. Craig Chalfant
August 24, 2017
Page 4

- Phase I ESA review of 1928 and 1938 aerial photographs indicated within the central-eastern portion of the site two side-by-side sumps adjacent to the drilling derrick. The two sumps and the derrick were removed by 1947. Future grading may encounter crude oil and/or drilling fluids in former sumps in this area." Please see comment #2 above.
10. Regarding LCWA Site, the EIR states, "Stockpiles of waste dirt and construction debris were observed throughout the site and it was reported that the subject site had been built up with approximately 20 feet of undocumented fill soil that was brought on site over a long period previous to 1973." DTSC recommends proper characterization and/or remediation under an appropriate government agency's regulatory oversight.
11. Regarding LCWA Dump Pit, the EIR states, "The 2004 chemical testing of soil indicated soil with elevated concentrations of arsenic lead, nickel, and vanadium. Soil gas concentrations for VOCs did not exceed the conservative shallow soil gas ESLs for the commercial/industrial land use scenario published by the San Francisco Bay Area RWQCB.62 Hydrogen sulfide gas was not detected in the 10 soil gas samples collected at the site. Methane concentrations in soil gas samples were several orders of magnitude below the lower explosive limit (LEL) of 5 percent (50,000 parts per million [ppm]). No VOCs or SVOCs were detected in groundwater samples collected at the LCWA site. In light of elevated concentrations of arsenic, lead, nickel and vanadium in soil at two locations identified during the 2004 investigation, additional soil testing was conducted in June 2017 at two locations proximal to earlier sampling locations within the central portion of the site (AEC 2017e). The results indicated that the metals concentrations were below screening levels, arsenic concentrations were all below regional background levels, and no further investigation or remediation is needed at the LCWA site." Please see comment #2 above.
12. Table 3-7-1 of the EIR contains the list of active assessment or remediation in progress at three of the neighboring sites. Please see comment #2 above.
13. If the project plans include discharging wastewater to a storm drain, you may be required to obtain an NPDES permit from the overseeing Regional Water Quality Control Board (RWQCB).
14. The EIR states, "A 2003 survey of the on-site structures indicated that asbestos-containing materials (ACM) and lead-based paint (LBP) had been identified in the office building, north shed, and south shed areas. In addition, tank batteries and pipelines may have ACM insulation or LBP (AEC 2017c)." If planned activities include building modifications/demolitions, lead-based paints or products, mercury, and asbestos containing materials (ACMs) should be addressed in accordance with all applicable and relevant laws and regulations.

3a-2
(cont.)

Mr. Craig Chalfant
August 24, 2017
Page 5

15. DTSC recommends evaluation, proper investigation and mitigation, if necessary, on onsite areas with current or historical PCB-containing transformers.
16. Soil excavated from potentially impacted areas should be sampled prior to export/disposal. If the soil is contaminated, it should be disposed of properly in accordance with all applicable and relevant laws and regulations. In addition, if the project proposes to import soil to backfill the excavated areas, proper evaluation and/or sampling should be conducted to make sure that the imported soil is free of contamination.
17. If during construction/demolition of the project in project areas that has not been investigated, soil and/or groundwater contamination is encountered or suspected construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the EIR should identify how any required investigation and/or remediation will be conducted, and the appropriate government agency to provide regulatory oversight.

If you have any questions regarding this letter, please contact me at (714) 484-5380 or email at Johnson.Abraham@dtsc.ca.gov.

Sincerely,



Johnson P. Abraham
Project Manager
Brownfields Restoration and School Evaluation Branch
Brownfields and Environmental Restoration Program - Cypress

kl/sh/ja

cc: See next page.

3a-2
(cont.)

Mr. Craig Chalfant
August 24, 2017
Page 6

cc: Governor's Office of Planning and Research (via e-mail)
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044
State.clearinghouse@opr.ca.gov

Mr. Dave Kereazis (via e-mail)
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

Mr. Shahir Haddad, Chief (via e-mail)
Schools Evaluation and Brownfields Cleanup
Brownfields and Environmental Restoration Program - Cypress
Shahir.Haddad@dtsc.ca.gov

CEQA# 2016041083

Comment Letter 3b



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

September 11, 2017

Craig Chalfant
City of Long Beach
333 W. Ocean Boulevard, 5th Floor
Long Beach, CA 92802

Subject: Los Cerritos Wetlands Oil Consolidation and Restoration Project
SCH#: 2016041083

Dear Craig Chalfant:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on September 6, 2017. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2016041083) when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures

cc: Resources Agency

3b-1

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7- OFFICE OF REGIONAL PLANNING
100 S. MAIN STREET, SUITE 100
LOS ANGELES, CA 90012
PHONE (213) 897-6536
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

9-6-17

7



Serious Drought.
Making Conservation
a California Way of Life.

September 6, 2017

Governor's Office of Planning & Research

SEP 11 2017

STATE CLEARINGHOUSE

Mr. Craig Chalfant
Planning Bureau, Development Services Dept.
City of Long Beach
333 West Ocean Blvd., 5TH Floor
Long Beach, Ca 90802

RE: Los Cerritos Wetlands Oil Consolidation
and Restoration Project
Vic. LA-1
SCH#2016041083
GTS# 07-LA-2017-01029-ME-DEIR

Dear Mr. Chalfant:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project includes the relocation of specific oil facilities currently located on the Synergy Oil Field and City-owned property to two properties in close proximity to the Synergy Oil Field and the removal of existing oil wells from the Synergy Oil Field and City Property sites.

Caltrans submitted comments on the Notice of Preparation for this project dated May 31, 2016, where we expressed concerns with potential transportation impacts to State facilities. Please reference of comment letter that has been attached for your convenience.

In the Spirit of mutual cooperation, Caltrans staff is available to work with your planners and traffic engineers for this project, if needed. If you have any questions regarding these comments. Please contact project coordinator Ms. Miya Edmonson, at (213) 897-6536 and refer to GTS# LA-2017-01029ME.

Sincerely,

DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

3b-2

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability."*

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF TRANSPORTATION PLANNING
100 S. MAIN STREET, MS 16
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SEP 11 2017

STATE CLEARINGHOUSE

May 31, 2016

Mr. Craig Chalfant
Planning Bureau, Development Services Dept.
City of Long Beach
333 West Ocean Blvd., 5th Floor
Long Beach, CA 90802

RE: Los Cerritos Wetlands Restoration
and Oil Consolidation Project (NOP)
SCH. #2016041083; IGR #1605457ME
Vic.: LA-1/PM 0.596, LA-22/PM0.01
LA-405/PM 0.495

Dear Mr. Chalfant:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project to implement a comprehensive wetlands restoration project, which will restore portions of a privately owned oil field through creation of a wetlands mitigation bank, while allowing operation of the oil facilities to continue.

Construction of the proposed project may have a potential significant impact on the transportation system through the hauling of excavated materials and debris, transportation of construction equipment and materials, and travel of construction workers to and from the project sites.

Although project operation will introduce new trips due to the visitors' center and pedestrian trail, some trips are anticipated to occur during peak commuting hours. The potential for the resulting increase in the use of the area's transportation facilities that could exceed roadway and transit system capabilities should be evaluated in the EIR.

Based on the information contained in the IS and to assist in evaluating the impacts of this project on State transportation facilities, a traffic study should be prepared prior to preparation of the Draft Environmental Impact Report (DEIR). Please refer the project's traffic consultant to Caltrans' Guide for the Preparation of Traffic Impact Studies website, which can be accessed at http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf.

The traffic study should analyze the following information:

1. Truck trips distribution/assignment on and to SR-1, SR-22, I-710, I-406 and I-605.
2. Traffic impacts on SR-1 from Seal Beach Blvd. to N Lakewood Blvd. with all significantly

3b-2
(cont.)

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*

Mr. Craig Chalfante
May 31, 2016
Page 2 of 2

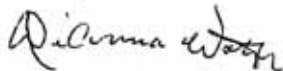
impacted streets, crossroads and controlling intersections, as well as analysis of existing condition and truck hauling/construction periods.

3. A truck/traffic construction management plan is be needed for this project on SR-1. Please submit to Caltrans for review.
4. Traffic volume counts to include anticipated AM and PM peak-hour volumes.
5. Level of service (LOS) during hauling/trucking periods.
6. A brief traffic discussion showing ingress/egress from the staging area or construction site, turning movements, and a directional flow for construction trips and maintenance vehicle trips.
7. Discussion of mitigation measures appropriate to alleviate anticipated traffic impacts, including sharing of mitigation costs.
8. The Congestion Management Program (CMP) to be used as guidance for monitoring system and not to exclude analysis on non CMP locations. On PCH between Seal Beach Blvd. to N Lakewood Blvd., I-710 between PCH and Pico Ave., I-405 between I-605 and I-710, SR-22 between SR-605 and PCH.
9. Off-ramp queuing analysis is needed if PCE (Passenger Car Equivalent) potentially will lead to safety issues to the mainline. The queuing analysis should be prepared based on HCM (Highway Capacity Manual). Please consult with Caltrans for details.
10. Since the project site is next to SR-1, please be reminded that any work performed within State right-of-way will require an Encroachment Permit from Caltrans. Any modifications to State facilities must meet all mandatory design standard and specifications.

We look forward to reviewing the traffic study. We expect to receive a copy from the State Clearinghouse when the DEIR is completed. However, to expedite the review process, and clarify any misunderstandings, you may send a copy in advance to the undersigned.

If you have any questions, please feel free to contact Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 160547ME/AL/DA.

Sincerely,



DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

3b-2
(cont.)

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability."*

Responses to Comment Letters 3a and 3b

Response 3a-1

The comment acknowledges that the proposed project is in compliance with State Clearinghouse review requirements for draft environmental documents and lists the agencies that reviewed the document.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 3a-2

The comment includes an attachment of the comment letter received from DTSC.

Refer to Comment Letter 1b to see responses to the letter prepared by DTSC.

Response 3b-1

The commenter is forwarding the comment letter received from Caltrans after the comment period closing. The commenter recommends that these comments be considered in the final environmental document but acknowledges that CEQA does not require Lead Agencies to respond to late comments.

The City of Long Beach has decided to reply to all comments received after the close of the comment period. Refer to Comment Letter 2b to see responses to the letter prepared by Caltrans.

Responses 3b-2

The commenter includes an attachment of the comment letter received from Caltrans.

Refer to responses to Comment Letter 2b to see responses to the letter prepared by Caltrans.

9.2.1.4 California Coastal Commission (CCC), September 15, 2017
Comment Letters 4a and 4b

Comment Letter 4a

Subject: FW: DEIR comment letter

From: "Huckelbridge, Kate@Coastal" <Kate.Huckelbridge@coastal.ca.gov>
To: "Christopher Koontz" <Christopher.Koontz@longbeach.gov>
Subject: DEIR comment letter

Christopher,

Attached is my comment letter on the DEIR for the BOMP Oil Consolidation and Wetlands Restoration Project. I apologize for my delay in submitting these comments to you, and I appreciate your flexibility in accepting them late.

My goal was to be thorough, and as a result, my comments are lengthy. Please let me know if you have any questions or would like to go through the comments in detail.

Have a great weekend!

Kate

=====

Kate Huckelbridge, PhD
California Coastal Commission
Energy, Ocean Resources & Federal Consistency Division
45 Fremont St. Ste. 2000
San Francisco, CA 94105
415-396-9708

4a-1

Comment Letter 4b

STATE OF CALIFORNIA – NATURAL RESOURCES AGENCY

EDMUND G. BROWN, JR., GOVERNOR

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400



September 15, 2017

Craig Chalfant
Planning Bureau, Development Services Department
City of Long Beach
333 West Ocean Blvd., 5th floor
Long Beach, California 90802

Re: **Comments on the Draft Environmental Impact Report for the Los Cerritos Wetlands Oil Consolidation and Restoration Project**

Dear Mr. Chalfant:

Thank you for the opportunity to provide input on the City of Long Beach's ("City") Draft Environmental Impact Report ("DEIR") for the Los Cerritos Wetlands Oil Consolidation and Restoration Project in the City of Long Beach. The project applicant, Beach Oil Minerals Partners ("BOMP"), formerly Synergy Oil and Gas, LLC, proposes to expand and relocate oil extraction and processing operations from the existing oil field within the City of Long Beach to two nearby sites, the Pumpkin Patch site and the Los Cerritos Wetlands Authority (LCWA) site. In addition, BOMP proposes to implement a comprehensive wetlands restoration project at the existing oil field through the creation of a wetland mitigation bank. Finally, the proposed project would result in the long-term abandonment of oil wells on an adjacent City-owned property.

4b-1

The entire project site is located within the Coastal Zone. The Pumpkin Patch Site is located within the boundary of the City of Long Beach's certified Local Coastal Program (LCP). The Synergy site, the LCWA site and the City owned property are located within the boundary of the Southeast Area Development and Improvement Plan (SEADIP) that was not included in the City of Long Beach's certified LCP and is thus under the direct jurisdiction of the Commission. The City is in the process of updating the SEADIP plan to be included in the City's certified LCP. This process, however, is ongoing and it is not anticipated that the updated SEADIP will be certified by the Commission before the proposed project comes before the Commission for approval. Thus, all elements of the proposed project that are within the SEADIP boundary will require a CDP from the Commission. In addition, the City and the applicant have requested a consolidated permit to allow the Commission to review the entire project, including the project elements on the Pumpkin Patch site which is the City's LCP jurisdiction. Therefore, the Commission will be reviewing the project in its entirety and determining whether to issue a CDP. The standard of review that the Commission will use to evaluate this CDP is the policies in Chapter 3 of the Coastal Act, with the City's LCP used as guidance. In addition, the City will be required to amend its LCP to reflect changes in zoning on the Pumpkin Patch site that are proposed by the applicant. The review and possible approval of the LCP amendment will precede the Commission's consideration of the CDP.

4b-2

4b-3

4b-4

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 2 of 18

To assist us in our review of the proposed project, we submit the following comments on the DEIR:

General:

1. We recommend that an alternative pipeline route between the Pumpkin Patch and LCWA sites should be evaluated. The City site is almost 100% wetlands and has a significant restoration potential. The existing SEADIP and other City planning efforts designate this area for restored wetlands. Placing a pipeline through the middle of the site diminishes the value of the surrounding wetlands and fragments the habitat on the site. Our biologist had discussed with the applicant an alternate route that followed along the easternmost road through the site (i.e., Alternative 5). This route has the benefit of reducing impacts to wetlands and tarplant as compared to the proposed project, but still results in a pipeline bisecting wetlands and valuable habitat. The proposed project and Alternative 5 could also result in visual impacts (i.e., industrial development in the midst of natural habitat areas). We would like to see an evaluation of the feasibility of routing the pipeline north from the Pumpkin Patch site, along the western edge of the site (along Shopkeeper Road) and then turning east and running west along the northern edge of the site (along 2nd St.). It appears this route might result in more direct impacts to existing wetlands, but could reduce fragmentation of wetlands and ESHA across the rest of the site, and on balance, may be the preferred alternative.
2. The EIR states that there may be a need for remediation at several locations within each of the four properties included in the project, and specifically notes that a Phase II ESA is being conducted. However, the proposed project does not include a specific description of the proposed activities associated with remediation. As a result, the DEIR provides incomplete information on the extent of contamination, the proposed cleanup process and standards that will be used to determine when the site is considered adequately remediated. In addition, impacts to wetlands and other biological resources, air quality, hydrology and water quality and other natural resources from remediation activities are not addressed. We recommend that these activities (or possibly a worst-case scenario) be included in the project description and then incorporated into the impact analysis for all relevant issue areas.
3. We recommend that the EIR quantify all impacts to wetlands and other biological resources and guarantee that adequate mitigation is provided. In general, the EIR assumes mitigation for any impacts to wetlands and sensitive natural communities will occur because the project incorporates substantial acreage for restoration. However, the applicant is also seeking to establish a mitigation bank in the restored areas to sell credits to other entities to satisfy mitigation requirements outside the proposed project. If the EIR does not explicitly quantify wetland and other biological resource impacts, and the applicant, in turn, is not required to explicitly remove the appropriate number and type of restored acres from the mitigation bank, there is a real possibility that the same restored acreage will be used to mitigate impacts from multiple projects, thus violating the no net loss of wetlands policy, and failing to meet wetland mitigation requirements under the

4b-5

4b-6

4b-7

4b-8

4b-9

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 3 of 18

- Coastal Act and possibly other state laws. To remedy this concern, we recommend that the City (1) ensures that all impacts to wetlands and other biological resources are adequately quantified (see Comments under Biological Resources), (2) the EIR requires the applicant to provide the necessary mitigation from the restored areas within the project (including providing appropriate mitigation ratios), and (3) the applicant is required to deduct its mitigation requirement from the credits available from the proposed mitigation bank in a manner that is satisfactory to the regulatory agencies and the IRT.
4. For any oil-related project, one of the most significant impacts is the risk of an oil spill. The DEIR examines this impact to an extent, but generally takes the approach that because the proposed project is required to comply with a host of state and federal laws related to oil drilling and production, impacts related to an oil spill are reduced to a less-than-significant level. We do not think this approach is sufficient to effectively evaluate the potential impacts associated with an oil spill. As shown in various current events around the country, catastrophic events do occur that can lead to unanticipated flooding, fires, and general disruption of regular operation. It is critical, when evaluating new projects, that we ensure adequate measures are in place to reduce the risk of an oil spill or an upset, but that we also evaluate the potential consequences of a catastrophic failure. Thus, we recommend that the EIR include an expanded analysis of the risk of an oil spill or upset. This analysis should include the following elements:
- a. Identification of the worst-case spill on each of the four project sites, and a cumulative worst-case scenario that may include multiple failures on multiple sites (i.e., from a major seismic event)
 - b. Identification of measures in place to prevent a spill (including those required by law).
 - c. Identification of the measures, protocols and equipment in place to address the worst-case spill, including an active contract with an Oil Spill Response Organization (OSRO).
 - d. Thorough discussion of impacts associated with the worst-case oil spill scenario.
- Executive Summary:
5. This section does not include any specific figures on the oil production portion of the project. Please include the following details in the appropriate sections: number of existing wells on the Synergy and the City sites, current production (barrels), number of wells to be drilled at the Pumpkin Patch and LCWA sites, anticipated production (barrels).
- Project Description:
6. Please include the following elements in the project description:
- a. Locations and descriptions of all areas used for staging of construction activities and accessways to work areas.
 - b. Details of asbestos remediation activities, should they be necessary.
 - c. Specific locations and procedures for remediation activities
 - d. Total amount of grading proposed. Has a grading plan been submitted?
 - e. Total length and dimensions of the sheet pile wall

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 4 of 18

- f. Additional details on how the proposed oil facilities will connect to existing oil pipelines. Pp. 2.56-57 includes some information about these connections, but it is unclear if these connections are part of the proposed project or if they will be constructed separately. 4b-21
- g. Anticipated production levels for the LCWA and Pumpkin Patch sites. 4b-22
- 7. The project description states that during storage tank removal, the Applicant and regulatory agencies would assess the foundation to determine if demolition was required. Please describe the circumstances under which demolition would and would not be required. Also, please confirm that all tank foundations will be removed from the site. 4b-23
- 8. The project description states that restoration work will require approvals from the IRT and the USACE as a mitigation bank. We wanted to make a clarification that restoration work still requires approvals by state and federal agencies independent of the IRT. 4b-24
- 9. P. 2-43 – please provide additional details on the above-ground pipeline containment berm. Is the corridor lined? How is pipeline installed? Laid on ground? Mounted on supports? 4b-25
- 10. Figure 2-21 does not show location of expansion loops. Is it possible to include a more detailed plan view of the pipeline corridor? Also please provide additional details on the expansion loops and how they work. 4b-26

Aesthetics

- 11. Please include the drilling equipment (160 and 120 foot rigs) in the visual simulations. In addition, we recommend that the visual impact from the rigs be considered a permanent impact because the drilling rig will be there for 11-14 years and then a redrilling rig will be used throughout the project life. 4b-27
- 12. P. 3.1-30. The DEIR states that the drilling rig not a permanent fixture. We disagree with this assessment. The drilling rig will be on site for 11-14 years, although it may be placed in different areas around the site. The redrilling rig will be present for subsequent years, and could be used frequently. 4b-28

Air

- 13. Is it feasible to spread construction out over a longer timeframe to reduce emissions? 4b-29
- 14. The calculation of air emissions for operation of the project for the first 20 years, from year 20 – 40 and then after 40 years provides a “credit” to the project for eliminating emissions from the existing oil field. However, the remaining emissions from the existing field are not taken into account, presumably because they are considered “existing” and not part of the project. This approach is misleading. Emissions from the existing oil field should, at a minimum, be accounted for in the calculation of localized emissions, since this is what local populations will actually experience. In addition, by phasing out the existing field over 40 years as part of the proposed project, the applicant has essentially incorporated existing operations into the project. It does not seem appropriate to apply a credit from eliminating emissions but not acknowledge or incorporate emissions from the existing operation into the calculations of emissions from operations over the long term. 4b-30
- 15. The emissions credit applied to the calculation of operational emissions of the proposed project is described as 75% of the total possible emissions for the first 20 years, 87.5% for years 20-40 and 100% for operations after 40 years. However, the actual emission 4b-31

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 5 of 18

- credit is larger than described for some pollutants. For example, the emissions credit for NO_x is listed as 42.9 lbs per day over the first 20 years. However, based on the actual emissions estimate of 51.4 lbs per day of NO_x, this actually results in a credit of 83.5% instead of the 75% described. Please account for this difference and add any needed explanation to the text. It may be appropriate to include assumptions used in calculating the reduction in emissions in a footnote.
16. The approach used to calculate emissions from existing operations and subsequently, the emissions credit applied to operational emissions from the project, provides a worst case emissions scenario for existing operations. However, this translates into a best-case credit that is used to reduce emissions from the proposed project. In reality, the "credit" the applicant would receive from reducing production at the existing oil field is likely to be much lower, and thus emissions associated with the project, higher. The existing emission levels are calculated using the maximum possible production levels that the site could sustain, assuming all 53 wells are operating at full capacity and trucks are required to transport crude oil from the site. However, our understanding is that production levels at the site are actually much lower because several wells are (and have been) idle and most are not operating at capacity. The approach used to calculate emissions at the existing field assumes that the site could operate at full capacity without addressing whether this is physically or economically feasible. We recommend revisiting this approach and implementing a more conservative approach that calculates actual emissions (and thus, the emission credit) from the existing field based on actual recent activity and production at the Synergy oil field.
17. Impact AQ-4 – Given that all four sites included in the proposed project are in close proximity to each other, why does the analysis for this impact consider each site independently instead of considering combined emissions from multiple sites? Depending on wind and other factors, construction-related emissions from one-site could potentially co-mingle with emissions from one of the other sites and increase the magnitude of potential impacts on sensitive receptor sites.
18. The analysis provided in this section considers construction and operations emissions separately. But given the phased construction activities proposed, some construction activities will occur simultaneously with some operation activities. It appears that this approach could lead to an underestimate of air emissions. We recommend that this approach be revisited and that staff at the South Coast Air Quality Management District be consulted to determine how to address this issue.
- Biological Resources
19. Figure 3.3-1 includes a multitude of upland and wetland vegetation communities, including cattail marsh, a freshwater wetland vegetation community. This type of community is distinct from the rest of the wetland communities in that it is supported by freshwater, not salt or brackish water. It is not clear from Figure 3.3-1 where the cattail marsh is located. Please clarify its location and identify any other freshwater wetland species or communities.
20. Has the applicant conducted recent surveys for southern tarplant surveys on the City property? On page, 3.3-20, the DEIR states that data from 2011 and 2013 was used to map southern tarplant on the City site. However, given the potential for these areas to be

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 6 of 18

- considered ESHA, recent data on populations will be critical in making a determination on the existence and extent of any ESHA. 4b-36 (cont.)
21. Sections 3.3.2.5 & 3.3.2.6. Would it be possible to include a map of all four sites identifying just the sensitive natural communities and areas of potential ESHA described in these sections? 4b-37
22. On Page 3.3-42, the DEIR states that GIS data that does not “distinguish between three criteria wetlands as defined by the USACE or wetlands defined by the CCA.” 4b-38
- a. When was the data used to build the GIS layers collected?
- b. Does the statement quoted above mean that the data used to determine wetlands as defined under the CCA do not account for 1 or 2-parameter wetlands? If so, the information provided does not provide Commission staff with adequate information to determine the extent of wetlands on the City property under the CCA. We request that a new wetland delineation be performed on the City site that incorporates the CCA definition of wetlands. 4b-39
23. Table 3.3-13 (p. 3.3-45). Please include a new map (or reference to a map already included in the DEIR) that show the Jurisdictional Areas within the City’s Right-of-Way as described in this table. 4b-40
24. P. 3.3.47. We disagree that the seasonal depressions on the Pumpkin Patch site are not considered wetlands under the Coastal Act. See attached technical memo (Attachment 1) from Coastal Commission senior biologist, Jonna Engel, for a full explanation. 4b-41
25. Impact BIO-1. Impacts to Southern Tarplant. This section finds that proposed impacts to Southern Tarplant would be considered significant but are reduced to less-than significant when Mitigation Measures BIO-1 and BIO-2 are applied. BIO-1 requires that Southern Tarplant be avoided and BIO-2 requires that Southern Tarplant that is impacted be restored based on a restoration plan that will be submitted to the City. However, this section does not quantify or identify which areas of Southern Tarplant will be avoided and which will be directly impacted. To remedy this deficiency, we recommend that the EIR be revised to: 4b-42
- a. Quantify the areal extent impacts to Southern Tarplant.
- b. Identify areas of Southern Tarplant that will be permanently impacted at all four sites on a map.
- c. Clarify BIO-2 to address the following: 4b-43
- i. Has CDFW indicated that they have the resources to provide the required consultation under this mitigation measure?
- ii. Does the required restoration plan apply to just areas that will be restored with Southern Tarplant?
- iii. Is there a mitigation ratio that will be applied to areas permanently impacted by the proposed project?
- iv. Because there is a requirement to mitigate for impacts to Southern Tarplant, this condition should stipulate (or it should be made clear in some form) that the required Southern Tarplant mitigation areas should be deducted from credits available from the proposed mitigation bank to avoid double-counting of mitigation. 4b-44
26. Impact BIO-2. Impacts to sensitive wildlife. 4b-45
- a. This section states that there is no potential for impacts to Steamshovel Slough and thus, no anticipated impacts to special status species that frequent the Slough

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 7 of 18

- (i.e., Green Sea Turtles, marine mammals, various invertebrates, Belding's Savannah Sparrow, etc.). However, grading and other construction activities, proposed adjacent to the Slough, including breaching the berm, creating a direct connection between newly graded (and currently non-tidal) habitat areas and the Slough and especially pile driving of the sheetpile wall, have the potential to result in increases in sedimentation, noise (airborne and potentially underwater), and other construction related impacts that could impact special status species. Please address these impacts, including adding any appropriate mitigation measures, in this section.
- b. Mitigation Measure BIO-3 – Has CDFW indicated that they have the resources to provide the required consultation under this mitigation measure?
 - c. Mitigation Measures BIO-4 and BIO-5 – Similar to Comment #25 above, we recommend including a provision in these mitigation measures that stipulate that the applicant shall not seek mitigation banking credits for the acreage that is required to be created to mitigate for project-related impacts under these measures. The restoration plan can include restoration of these areas within the overall plan for the mitigation bank, but should deduct these acres from the total acres credited to the bank.
 - d. Mitigation Measure BIO-5 requires that the applicant mitigate for impacts to sensitive natural communities at a minimum ratio of 2:1 for permanent impacts and 1:1 for temporary impacts. We would like to note that many of the sensitive natural communities that are described are also considered wetland areas under the Coastal Act. Mitigation for permanent impacts to these areas will be required consistent with Section 30233 of the Coastal Act. Under previous permits, the Commission has required 4:1 mitigation for permanent impacts to wetlands areas.
27. Impact BIO-3. Impacts to sensitive natural communities.
- a. This section describes impacts to sensitive natural communities as either temporary or permanent. However, it is unclear how impacts are defined as temporary versus permanent. Many of the impacts described as temporary appear to be permanent (see Table 3.3-16).
 - i. Constructed berm: The constructed berm separating the northern portion of the Synergy site from the southern portion is designed to be (1) upland and (2) in place for a minimum of 40 years. Thus, construction of this berm results in the conversion of areas of vegetated wetland alliances to upland and should be considered permanent impacts and mitigated as such. In similar cases, the Coastal Commission has required 4:1 mitigation. However, given the desire to design the berm to provide resilience to sea level rise and to create valuable habitat for wetland and upland species, it may be appropriate to reduce this mitigation ratio.
 - ii. Impacts to vegetated wetland alliances from sidewalk grading and construction of the Overlook terrace, both of which are non-habitat, upland features intended to be permanent, should also be considered permanent impacts and mitigated appropriately. Also, impacts to wetlands resulting from construction of a sidewalk are not generally considered an allowed use of fill/excavation in wetlands under the Coastal Act.

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 8 of 18

- b. Impacts to the depressional areas within the Pumpkin Patch site will be considered impacts to wetlands under the Coastal Act. Please incorporate impacts to these areas into this section. Based on Commission action in similar cases, mitigation for impacts to this area is likely to be required at a 4:1 ratio. 4b-53
- 28. Impact BIO-4. Impacts to jurisdictional waters and wetlands.
 - a. P.3.3-74 (see Comment #25 above). The last paragraph on this page includes a statement that because the proposed project is a wetland restoration project, no compensatory mitigation is required for impacts to wetlands. We do not agree with the City's approach. Under the Coastal Act (as well as other state and federal laws), impacts to wetlands are required to be fully mitigated. The project does include ample habitat acreage to fulfill any mitigation requirements, but these requirements must be quantified and accounted for. In addition to restoring the northern portion of the Synergy site, the applicant is also seeking to set up a mitigation bank at the site, with the intent of selling credits to third parties to meet mitigation requirements not related to the project. If the applicant is permitted to sell credits for every acre it restores, without taking into account its own mitigation requirements related to impacts from the proposed project, the no net loss of wetlands policy is violated and multiple entities are able to mitigate impacts to wetlands by restoring the same acreage, also known as "double dipping." Please revise this section to require the necessary acres of compensatory wetlands mitigation based on the impacts described. These requirements can and should be fulfilled through restoration actions at the Synergy site, but must be explicitly accounted for and removed from the mitigation bank available credits. 4b-54
 - b. P.3.3-75. The first paragraph states that impacts to jurisdictional areas related to tidal channel grading, seawall berm and overlook terrace installation, berm/road removal and on-site sidewalk grading are considered temporary because the areas will be revegetated or converted from one type of aquatic resource to another. We understand how this logic is applied to tidal channel grading and berm/road removal (assuming these areas are within the tidal wetland restoration area). But how is the City applying this logic to areas that will be converted from wetland to upland (seawall berm) and areas that will be covered with trails or public access facilities instead of wetland habitat areas (overlook terrace and sidewalk)? As these proposed areas cannot be considered aquatic resources, impacts to the wetlands that currently exist in these areas (if determined to be allowable) should be deemed permanent and mitigated accordingly. 4b-55
 - c. Would it be possible to include a map of the wetland areas impacted by the proposed project for the differing jurisdictions? 4b-56
 - d. Impacts to wetlands from sidewalk grading at several of the project sites are broken into temporary and permanent impacts. Please provide additional information as to the difference between permanent and temporary impacts. Is the applicant proposing to restore wetlands to the areas that are graded to install the sidewalks but not permanently impacted by the sidewalk pavement itself? If the impact is found to be allowable under the Coastal Act, to be considered a temporary impact, the applicant would be required to restore wetlands to impacted areas that meet wetlands success criteria within one year. If success criteria are 4b-57

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 9 of 18

- not me, the applicant would be required to provide mitigation for permanent wetlands impacts. 4b-57 (cont.)
- e. Mitigation Measure B-10: This measure should be revised to require compensatory mitigation for all impacts to jurisdictional wetlands (see Comment #28 above). 4b-58
- f. This section does not quantify temporary or permanent impacts to wetlands from the removal of pipelines and the abandonment and removal of wells and storage tanks (including concrete pads) from the Synergy and City sites. Some of the well-heads and the storage tank areas on the City site are located within or immediately adjacent to wetlands, and thus temporary and some permanent impacts are likely. Removal of existing pipelines and racks will include (at a minimum) permanent impacts from excavation in wetland areas to remove rack supports and temporary impacts for a 10 foot work area (as described in the project description) around all pipelines. Please describe and quantify these impacts in this section. These impacts must be found consistent with the 3 tests of Section 30233 of the Coastal Act which include finding that (1) the fill or excavation is an allowable use, (2) the proposed fill or excavation is the least damaging alternative and (3) appropriate mitigation is provided. 4b-59
- g. Please address potential impacts to wetlands and appropriate mitigation measures from removing pipelines containing asbestos. 4b-60
- h. Please address impacts from staging and use of heavy equipment within the wetlands (including all wetlands areas – vegetated and non-vegetated). 4b-61
- i. Is there a potential for impacts to wetlands related to the relocation and raising of the Bixby Ranch Field Office Building? 4b-62
29. Impact BIO-5: Please revise to address potential impacts to address the project's potential to impact native wildlife nursery sites for birds, fish and other aquatic organisms located within the Slough due to increased sedimentation and runoff, noise and other construction-related impacts resulting from restoration of wetland areas adjacent to the slough. 4b-63
30. Impact BIO-6: Conflicts with local policies.
- a. This section does not address impacts to potential ESHA areas on the Synergy, Pumpkin Patch, and City sites from construction-related and operation-related noise, dust, increased sedimentation and runoff, and year-round human and industrial presence (i.e., instead of the current seasonal presence at the Pumpkin Patch site). Please address these potential impacts in the EIR. 4b-64
- b. Please provide additional information on how the Wetlands and Buffer policies included in SEADIP (described on pp. 3.3-52-55) apply to the proposed project, and if the proposed project is consistent with these policies. Alternatively, providing a reference to the Land Use section should suffice. 4b-65
31. In general (and as noted above in several specific location), this section did not address potential impacts to biological resources from noise, dust, excessive sedimentation and runoff, etc. from construction and operation of the proposed project. Please address these impacts. 4b-66

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 10 of 18

Cultural Resources

32. The proposed project includes the drilling of 120 wells to an unspecified depth, but certainly within the depth range where discovery of paleontological and potentially other cultural resources are possible. Did the City consider this component of the proposed project in its evaluation of cultural resource impacts? Would the various mitigation measures proposed for excavation and grading activities apply to well drilling activities? If these measures do not apply, are there additional mitigation measures that could be proposed that would reduce the likelihood that well drilling activities could adversely impact buried cultural resources?

4b-67

Geology, Seismicity and Soils

33. Was the landfill on the eastern side of the Synergy site characterized to determine the nature and extent of chemicals that could impact proposed wetlands adjacent to the landfill?
34. Section 3.2.5.4 does not address the potential risk for subsidence related to the landfill on the Synergy site. Please include this analysis.
35. Section 3.2.5.4 also states that although no geologic investigation was conducted, the same geologic conditions related to expansive soils that exist on the LCWA and Pumpkin Patch sites (where investigations were conducted) is believed to exist at the Synergy and City sites. Please provide justification for this assertion.
36. Impact GEO-1.
- a. As stated in the first paragraph under Construction, project-related construction activities on the Synergy and City sites would include the abandonment of wells within and adjacent to the fault zone. Abandoning these wells will clearly decrease the long-term risk of adverse impacts related to a surface rupture (i.e., damage to existing wells, potential for an oil spill, etc.). However, this section does not address the potential for an increase in risk during abandonment activities. An increase in activity, equipment, and personnel needed for well abandonment activities would likely increase the risk of adverse impacts, albeit for a relatively short period of time (similar to the impacts described for construction of the pipeline on the City site). Furthermore, stretching abandonment activities over 40 years does extend this potential impact over a relatively long time period. Please address these impacts in this section.
 - b. P. 3.5-30. The second paragraph in this section raises the possibility that additional water may be needed for injection into the oil production zone to reduce the risk of subsidence. Is there an expectation that additional water would be needed? Where would additional source wells be located? What is the process for analyzing impacts associated with additional wells?
 - c. P. 3.5-31. The first paragraph on this page describes the potential impacts from operating an oil pipeline that crosses over the Newport-Inglewood Fault. This section references a study (Hoennege 2016) that evaluated these impacts (Appendix E5).
 - i. Was a detailed geotechnical evaluation of the City site conducted?
 - ii. The Hoennege study recommends that based on current industry practice, the project should be designed to accommodate 2/3 of the mean, maximum fault displacement, or 6.1 ft (based on a 7.2 magnitude

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Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 11 of 18

- earthquake). This does not represent a worse-case scenario, and thus the impact analysis does not examine the maximum potential impact.
- iii. The conclusion of the Hoenneker study is that an underground pipeline through the City site (as originally proposed) could not accommodate the design fault displacement of 6.1 ft and thus an aboveground pipeline was preferred. The study included a conceptual alignment for the fault crossing and several recommendations for design of the pipeline. However, the EIR does not discuss if these recommendations are implemented in the proposed design of the pipeline, nor is there an analysis of how the proposed above-ground design will perform if fault displacement occurs.
- iv. If pipeline rupture does occur, what is the maximum oil spill volume? Although the probability of a spill related to fault displacement might be low, what are the potential impacts from a spill?
- v. What mitigation measures should be required to ensure that the risk of an oil spill is reduced as much as possible?
- Based on these concerns, we recommend that the City provide a more robust analysis of the potential for impacts associated with fault rupture on the City site. It is impossible to completely eliminate the possibility of a pipe rupture, so this section should also consider the impacts associated with the maximum potential oil spill. Commission staff will require additional information than what is currently presented in the DEIR to make a recommendation related to the proposed project's consistency with Sections 30230, 30231, 30232, 30233, 30240 and 30253 as it relates to impacts related to a fault rupture and the potential for an oil spill.
- d. This section should also address the potential for fault rupture to result in adverse impacts associated with operation of the existing oil wells on the Synergy and City sites. These wells could be in place for as long as 40 year and should be considered under operational impacts.
37. Impact GEO-2.
- a. Construction: This section does not include an actual analysis of potential impacts related to construction of proposed project components in the event of a seismic event. Stating that project components will be designed to code and will be designed and inspected by appropriately licensed personnel does not provide enough information to determination on the potential for impacts.
- b. Operation: Similar to (a) above, we note that this section does not include an analysis of impacts associated with a seismic event and is inadequate to support a finding of no significant impact. MMGEO-1 requires the applicant to prepare a geotechnical investigation for various project components that addresses relevant geotechnical issues such as active faults, seismic shaking, liquefaction, etc. This measure assumes that the results and recommendations from this investigation will be adequate to "reduce identified risks." However, this section does not identify what the risk is, how, specifically, that risk is reduced, and what level of risk remains after mitigation is implemented. This does not allow for a full analysis of potential impacts associated with the project or an analysis to determine if the reduction in risk that can be achieved through building design



Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 12 of 18

- standards is sufficient to merit a finding of no significant impact. To address this issue, the findings of the geotechnical investigation should be fully disclosed in the EIR and the project's ability to mitigate potential risks should be examined. If necessary, specific mitigation measures should be proposed to reduce risks.
- c. Please address the design and stability of the proposed berm and sheetpile wall separating the restored area from ongoing oil operations on the Synergy site. What is the likelihood of failure of this berm as the result of significant seismic activity?
- d. At a minimum, we recommend that the EIR include a comprehensive analysis that examines potential impacts associated with a seismic event. The proposed project involves several structures and equipment with the purpose of extracting, processing and storing crude oil. This operation is located immediately adjacent to an active fault and in close proximity to several other faults. As stated at the beginning of the section, it is anticipated that a seismic event will occur in the area over the life of the project. It is critical that a thorough analysis of the potential impacts related to seismic shaking and other seismic impacts to and resulting from the proposed project be included in the EIR to allow the public an opportunity to understand the potential risks associated with the project. This analysis should include the following components:
- i. Description of an average and a worst case seismic event that could affect the project, including a thorough analysis of the magnitude and rates of associated ground motion.
 - ii. Proposed project design criteria
 - iii. Thorough analysis of effects associated with seismic impacts including impacts related to an oil spill. This analysis should specifically address risks associated with the drill rigs, storage tanks, and other equipment on site. This analysis should also address the likelihood and potential impacts associated with damage to underground wells.
38. Impact GEO-3. See comments for Impacts GEO-2 above.
39. Impact GEO-5.
- a. This section does not include an analysis of impacts related to project-related erosion. Development and implementation of a SWPPP will certainly reduce the likelihood that erosion will result from the proposed project. However, it cannot completely eliminate erosion and erosion-related impacts from the project, especially during construction. We recommend that this section be expanded to include a discussion of sources of erosion during construction and operation and potential impacts to adjacent lands, wetlands and waterways associated with that erosion.
 - b. Does the proposed project include any temporary stockpiling of topsoil? If so, where are these temporary stockpiles located, and what measures will be in place to ensure erosion is reduced to an insignificant level?
 - c. How does the applicant propose to reduce sedimentation and erosion into Steamshovel Slough during construction of the levee breaches?
 - d. What is the expected rate of erosion associated with the increase in tidal prism? Is the system expected to reach equilibrium? After what period of time?

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(cont.)

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Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 13 of 18

40. Impact GEO-6.

a. This section (as well as earlier sections) state that the applicant will be reinjecting produced water into the oil production zone to reduce the risk of subsidence. We recommend that the EIR include a monitoring and reporting requirement to ensure that risks associated with subsidence are reduced to an acceptable level. Alternatively, if there is an accepted standard or requirement from another regulatory agency that addresses this concern, we recommend that this information be included in this section.

4b-92

b. If, as stated in this section, the geotechnical and environmental studies indicate a potential for significant collapse at the LCWA and Pumpkin Patch sites due to the unknown composition of fill material on site, this creates the potential for a significant impact that is not adequately addressed by the EIR. We recommend that further geotechnical investigations be undertaken to determine the composition and stability of fill on both sites, and that this information be incorporated into the EIR. Alternatively, the City could require that the applicant remove the fill to mitigate this risk and perform a subsequent analysis on the stability of the site based on the proposed fill properties.

4b-93

41. Impact GEO-7. This section states that preliminary geotechnical investigations at the Pumpkin Patch and LCWA sites indicate that recommend special foundation design accompanied by replacement of on-site soils with non-expansive soils or use of stiffer foundations. Is the applicant proposing to implement either of these recommendations?

4b-94

42. Cumulative Impacts.

a. We recommend revisiting this section once a more thorough analysis of erosional impacts is undertaken (see comments above). BMPs reduce but do not eliminate erosion from construction projects. A discussion of impacts associated with anticipated levels of erosion, including cumulative impacts when this project is combined with other projects, should be included in this section, especially as it relates to adjacent wetlands and waterways.

4b-95

b. We recommend that this section address the cumulative impacts associated with an oil spill that results from damage to structures in a seismic event.

4b-96

Greenhouse Gas Emissions

43. The methodology states that construction emissions are calculated just for the first four years when the majority of construction activities are proposed to take place. Are the continuing well abandonment activities (over 40 years) incorporated into this emission estimate? If not, we recommend these emissions be incorporated into the construction estimate presented in Table 3.6-2.

4b-97

44. Table 3.6-4.

a. If the majority of the construction-related emissions are occurring in the first 4 years, why are they annualized over 30 years?

4b-98

b. What are curtailed emissions and how are they calculated?

4b-99

Hazardous Materials

45. P.3.7-4. PCB Removal. How does the 1mg/kg screening level compare with current screening levels for habitat areas and/or wetlands?

4b-100

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 14 of 18

46. P.3.7-6. Soil Investigations. What screening levels were used in these investigations to determine if detected levels of contaminants were problematic? 4b-101
47. If cleanup activities are proposed to be conducted under the proposed project, the locations, boundaries and volumes of all necessary excavations should be described and impacts associated with the excavation and disposal of the material should be evaluated. 4b-102
48. At the beginning of this section, the DEIR describes the historic practice of creating a sump next to oil wells for disposal of produced water and drilling muds. Are there records of where these sumps are located? Were the sampling points for the soil investigations designed to investigate potentially contaminated sump areas? 4b-103
49. Why was only one sample collected from the City site? 4b-104
50. P. 3.7-25. The DEIR states that it will not analyze potential impacts associated with fracking because the applicant does not identify fracking as part of the proposed project and the applicant will be required to follow all federal and state laws regarding fracking. However, this completely sidesteps the issue. Many operators consider fracking to be a normal part of oil extraction and production operations. As such, it would not necessarily be specifically described or called out in the project description. Furthermore, a lack of federal and state law related specifically to fracking is part of the reason the issue of fracking has been raised by the public. If the applicant intends to use fracking as part of its operation, impacts associated with fracking should be examined in the EIR. However, as the impacts from fracking are still not well understood, and state and federal governments are still grappling with how to regulate fracking, it may be desirable to include a mitigation measure that requires the applicant to examine impacts associated with fracking if and when it chooses to frack any of its proposed wells. 4b-105
51. Impact HAZ-1.
 - a. Please include the volumes of soil that will be removed during remediation activities in addition to the tonnage. 4b-106
 - b. Does the proposed remediation adequately address any sumps that are still present on the Synergy and City sites? What is the likelihood that additional unknown sumps or other sources of contamination are present on the site? 4b-107
 - c. In the absence of data on the City site, we recommend that a worst-case remediation scenario be included in analyzed in this section. 4b-108
 - d. P. 3.7-28. Please provide more detail on the DOGGR and Department of Health Services regulations that will reduce potential impacts from well plugging and abandonment. 4b-109
 - e. P. 3.7-29. The section on well drilling and operation discusses the potential for a blowout. According to the DEIR, it is not possible to eliminate the potential for a blowout. However, this section does not include any description of the potential magnitude of a blowout, specific procedures in place to address a blowout, and a discussion of the potential impacts associated with a blowout. We recommend including a more robust analysis that addresses the issues described above. 4b-110
 - f. Pipeline. In the event of a spill, how much of the material would be contained in the berm and how much would soak into the ground? What are the long-term consequences to surrounding habitat areas if there is a spill within the berm? We also recommend that the DEIR address potential impacts from a spill where the containment berm is breached and/or other reasonable worst case scenarios. 4b-111

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 15 of 18

- Although the chances of this type of an event are very small, the consequences have the potential to be significant.
- g. Storage tanks. We recommend that the DEIR address potential impacts from a multi-tank spill and a spill where the secondary containment system is breached. Although the chances of this type of an event are very small, the consequences have the potential to be significant.
 - h. Microgrid and Natural Gas Turbine System. This section describes the safety measures in place to reduce the risk of fire or other upset. But the potential for fire or upset cannot be completely eliminated. In the unlikely event of a fire or upset, what are the potential impacts to the public and the environment?
52. Is the applicant contracted with an Oil Spill Response Organization (OSRO)? If so, please identify the OSRO. If the applicant is not already contracted with an OSRO, the Commission is likely to include this as a requirement of the CDP.

Hydrology and Water Quality

53. Section 3.8.2.3. The analysis in this section is based on one sample taken from the Synergy site in 2005. In other words, the conclusion drawn in this section that surface water quality is not a concern is based on outdated and unrepresentative data. We recommend that additional data be collected and analyzed to support (or refute) this conclusion. Because the northern half of the site will be opened to tidal influence, it is important to understand any existing water quality problems in order to avoid exposing the relatively pristine habitat in the Slough to potential contaminants.
54. Impact HY-1.
- a. Construction of wells. We recommend that this section be expanded to include potential water quality impacts associated with a blow-out, the potential for lateral migration of drilling muds and/or oil in deeper areas where conductor casing is not installed, especially when a well is under pressure.
 - b. Construction over the Location of Wells. Is there information available regarding the date and procedures used to plug historic wells on the four project sites? Are there any known problems with leaks from abandoned wells? What is the average lifespan of a well plug? This section states that DOGGR requires avoidance of all active wells (including abandoned wells). How is this compatible with the proposed grading and restoration in the northern half of the Synergy site? Furthermore, it is possible that even if wells are avoided, construction in nearby areas could result in damage to well casings or affect the subsurface seal. If this occurs, what are the water quality impacts to surrounding habitat areas? On the Pumpkin Patch and LCWA sites, how could nearby drilling affect nearby plugged wells?
 - c. Construction of other Structures. We agree that a SWPPP is a critical component of any construction project. It will be especially true for this project given its proximity to wetlands and waterways. However, a SWPPP cannot completely eliminate the potential for releases of sediment into surrounding areas. Please include analysis of potential increases in sediment-laden runoff, especially during berm breaching activities on the Synergy site. Furthermore, as mentioned earlier, if temporary soil stockpiles will be used, the EIR should identify locations for these stockpiles, measures that will be used to reduce erosion and runoff from

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 16 of 18

- these areas, and potential impacts associated with increased sedimentation from these areas.
- d. Operation – Oil Production. This section does not address the potential water quality impacts associated with an oil spill from the LCWA and Pumpkin Patch sites. Please revise.
- e. Operation – Restored Area. This section states that some erosion is expected initially, but that in a stable estuary, mature marshes maintain equilibrium between erosional and depositional processes. What is the estimated time period before the restored marsh areas will be considered mature? In the meantime, what measures are in place to minimize erosion from the newly restored areas into the Slough and Los Cerritos Channel? Is there any monitoring proposed? If not, we recommend a water quality monitoring program during and after breaching of the existing berm and introduction of tidal flows into the northern portion of the Synergy site. This program would likely be focused on suspended sediment concentrations but could also include contaminants that could be present on the site, including heavy metals, and oil-related contaminants.
55. Impact HY-3.
- a. The Commission’s Sea Level Rise Policy Guidance recommends that proposed projects consider anticipated sea level rise over the life of the project. For long term projects, the Guidance recommends considering, at a minimum, projected levels of sea level rise out to 2100. The proposed project is intended to be in operation for much longer than 2060, the endpoint of the sea level rise analysis included in the DEIR. To inform the analysis included in the CDP, Commission staff is likely to require that the Applicant submit modeling results and analyses that incorporates sea level rise out to 2100.
- b. Is the top of the sheetpile wall also 9 ft NGVD29?
- c. How would sea level rise impact the proposed restored wetland areas? Does the increase in tidal prism related to the proposed restoration, coupled with sea level rise and storm events, result in flooding in other locations surrounding or downstream of the Synergy site?
56. HY-5. Please include a more detailed discussion of the impacts related to sea level rise and flooding on all four project sites. Under what conditions would the various sites experience flooding? Did the model look at the combined effects of sea level rise and a major flooding event? If so, what were the results? Is there an increase in flood risk in any of the surrounding areas?
57. Impact HY-6. What type of event would result in overtopping of levees along the San Gabriel river? Although the proposed project would not alter the risk of flooding to the site, the proposed project does introduce new structures and people to the site that could lead to hazard conditions in a flood. If the Pumpkin Patch or LCWA sites are flooded, what are the potential impacts to water quality? Exposure to hazards?
58. HY-7.
- a. Are the County of Los Angeles’s actions to become TsunamiReady anticipated to be in place before construction of the proposed project commences?
- b. Although inundation from a tsunami is not likely, it is possible given the proposed project’s location within the tsunami runnup zone. Please include a discussion of

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Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 17 of 18

the potential impacts on the project components and from the project components on the surrounding area from a tsunami.	4b-128 (cont.)
59. Based on some of the concerns raised above, we recommend that the City consider including a comprehensive groundwater monitoring program. The purpose of this program would be to monitor concentrations of oil-related and other contaminants with the goal of detecting any subsurface releases related to new or legacy oil wells and oil production operations.	4b-129
<u>Land Use</u>	
60. Wetlands Policy 2 of the SEADIP requires that restoration of the entire Synergy site be conducted at one time. Although a phasing approach to restoration is described, the proposed project does not actually propose the restoration of the southern half of the Synergy site. To ensure consistency with this policy, one potential approach would be for the City to require restoration to the wetlands on the southern half of the site at the end of the 40 year decommissioning period as envisioned by this policy. Although restoration of the site would not occur at one time, it would be guaranteed to occur over the longer term.	4b-130
61. Specific Development Standards for Subarea 33. These standards require that 96.1 acres (the entire Subarea 33) be restored to wetlands. The proposed project only includes 76.52 acres. See comment #?? above for a potential approach to deal with this discrepancy. In addition, these standards require development of a 2 acre least term nesting site. Is it feasible to include a least term nesting site in the proposed restored area to ensure consistency with this policy?	4b-131
62. Specific Development Standards for Subarea 25. Policy 25k requires a 30 foot landscaped setback from the San Gabriel River for a trail. Is this setback incorporated into the proposed project? If not, is it feasible?	4b-132
<u>Noise</u>	
63. Impact NOI-2. This section (also the Biological Resources section) does not adequately address potential impacts to sensitive species, including aquatic species, from pile driving – vibratory or impact – of the sheetpile wall. Please incorporate analysis of these impacts. If impacts to aquatic species are possible, and if underwater noise levels reach certain thresholds identified by NOAA, NOAA should be consulted on the potential for take from proposed activities.	4b-133
64. Impact NOI-4.	
a. Since certain components of construction and operation will occur concurrently, did the noise analysis take the combined noise levels from construction and operation into account?	4b-134
b. In addition, what would be the expected operational noise levels at the proposed Visitor Center and along the proposed trail?	4b-135
<u>Recreation</u>	
65. Will the proposed project have any impacts on coastal recreation and public access?	4b-136

Comment Letter on the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
Page 18 of 18


66. When will the Visitor's Center and Studebaker trail be available to the public? If it will not be available until oil operations cease at the southern portion of the Synergy site (i.e., after 40 years), this should be made clear in the EIR.

4b-137

Thank you for the opportunity to review the DEIR. We have greatly appreciated the outreach, regular updates and other communications between the City and Coastal Commission staff during development of the EIR. Please do not hesitate to call me at 415-396-9708 if you would like to discuss any of these comments further.

4b-138

Sincerely,



KATE HUCKELBRIDGE
Senior Environmental Scientist

ATTACHMENT 1

STATE OF CALIFORNIA – THE RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 585-1800



MEMORANDUM

FROM: Jonna D. Engel, Ph.D., Senior Ecologist, Technical Services Ecology Group

TO: Kate Huckelbridge, Senior Environmental Scientist, Ocean and Energy Division

SUBJECT: Synergy/BOMP: Los Cerritos Wetland Oil Consolidation and Restoration Project

DATE: July 25, 2017

Documents Reviewed:

Pfeiffer, T. & T. Bomkamp (Glenn Lukos Associates). May 3, 2017 [Revised June 2, 2017]. Technical Memorandum: Impacts to Areas that Potentially Meet the California Coastal Act Definition for Environmentally Sensitive Habitat Areas (ESHA) Associated with the Los Cerritos Wetlands Oil Consolidation and Restoration Project, Long Beach, California. Project Number: 10320002MITI. To: Kate Huckelbridge, Jonna Engel, Chuck Posner.

4b-139

Pfeiffer, T. & T. Bomkamp (Glenn Lukos Associates). May 3, 2017. Technical Memorandum: Impacts to Areas that Potentially Meet the California Coastal Act Definition for Environmentally Sensitive Habitat Areas (ESHA) Associated with the Los Cerritos Wetlands Oil Consolidation and Restoration Project, Long Beach, California. Project Number: 10320002MITI. To: Kate Huckelbridge, Jonna Engel, Chuck Posner.

Pfeiffer, T. & T. Bomkamp (Glenn Lukos Associates). February 3, 2017. Biological Technical Report for Los Cerritos Wetlands Oil Consolidation and Restoration Project, City of Long Beach, Los Angeles County, California. Prepared for City of Long Beach Development Services, Planning Bureau.

Sparanza, John II (EIP Associates). May 24, 2005. Technical Memo: Marina Shores Wetlands. Addressed to Jill Griffiths, City of Long Beach.

On Friday, May 5, 2017, I met CCC staff Chuck Posner and Zach Rehm, Synergy Oil representative Michael Di Sano, and Synergy's biological consultants Thienan Pfeiffer and Tony Bomkamp, from Glenn Lukos Associates (GLA), in Long Beach, to visit the four Los Cerritos Wetland Oil Consolidation and Restoration Project sites including the

J. Engel memo re: Synergy Oil

July 25, 2017

Pumpkin Patch, Long Beach City property, Los Cerritos Wetlands Authority (LCWA) property, and the Synergy Oil Field. In preparation for the site visit I reviewed the biological reports cited above that include wetland determinations and environmentally sensitive area (ESHA) assessments and looked at historical and current aerial photographs. The purpose of the site visit was to observe and assess on-the-ground biological conditions at each site.

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4b-139

The proposed project is still in the development phase and has not been submitted to the Coastal Commission for formal review. The conclusions drawn in this memo are meant as guidance to Coastal Commission staff and have not been vetted by the Coastal Commission itself. A final determination on ESHA and wetland impacts will not be made until the matter is brought before the Coastal Commission for a decision.

Pumpkin Patch Site

The Pumpkin Patch site is located at 6701 E. Pacific Coast Highway and consists of approximately seven acres with an approximately five acre upper area and an approximately two acre lower area. The upper area owes much of its elevation to fill material placed on top of a former landfill. The upper area has been and continues to be used for seasonal commercial activities including, as the name implies, a pumpkin patch and kid's carnival area as well as a Christmas tree lot and the associated staging and parking for these activities. The upper area of the site is proposed for oil well consolidation. The lower area north of the upper area includes a slope covered with iceplant that abuts oil operations and associated roads and pads within non-tidal pickleweed mats and unvegetated wetland flats.

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4b-140

GLA conducted a wetland delineation of the site in Spring 2016. They found that while the depressed area in the south-east corner of the site did support two wetland status plants including sand spurry (*Spergularia marina*, OBL) and southern tarplant (*Centromadia parryi* ssp. *Australus*, FACW), it did not meet the criteria for a jurisdictional or CCC wetland (Figure 1). GLA conducted focused botanical surveys of the pumpkin patch site in 2011, 2013, and 2016 and found that while the upper area of the pumpkin patch site did support a few small patches of the rare plant, southern tarplant, that is state listed S2 and California Native Plant Society (CNPS) listed 1B.1¹, the population on the site did not rise to the level of ESHA (Figure 2). In addition to the vegetation and wetland surveys, GLA also conducted burrowing owl surveys at the pumpkin patch site in 2015, 2016, and 2017 during which no burrowing owls were ever observed.

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4b-141

On our site visit I found that the upper area of the Pumpkin Patch site was a very degraded flat area that consisted primarily of compacted bare dirt with scattered patches of non-native weeds save for an oval shaped depression at the south-east corner of the site, similar in size and shape to the "artificial seasonal wetland" identified

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4b-142
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¹ State level 2 communities and species are identified as "imperiled – at high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors. CNPS 1B plants are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century.

J. Engel memo re: Synergy Oil

July 25, 2017

on the May 24, 2005 EIP memo to the City of Long Beach (Figure 3). The depression supported patches of tarplant, sand spurry, and rabbit's foot grass (*Polypogon monspeliensis*, FACW) and exhibited several primary indicators of hydrology such as surface soil cracks, sediment deposits, and inundation visible on aerial images (Figure 4). In addition, GLA conducted wet season fairy shrimp surveys in this area in 2011-2012, 2012-2013, and 2016-2017 and while no federally-listed fairy shrimp were detected, common versatile fairy shrimp (*Branchinecta lindahli*) were identified on February 3, 2012 and every week from December 6, 2016 through February 14, 2017 (see Table 7 of the Jurisdictional Delineation within the February 2017 Biological Technical Report). Aquatic invertebrates are another primary indicator of hydrology. Finally, on page 18 of the Jurisdictional Delineation in the February 2017 Biological Technical Report, GLA states that "Ponding of 14-day duration was not observed during the 2012-2013 rainfall season..." thus implying that 14-day ponding did occur in the 2011-2012 and 2016-2017 wet seasons. Fourteen days of ponding is also considered primary evidence of hydrology.

4b-142
(cont.)

Based on my review of the biology reports cited above, study of aerial images, and my site visit observations, unlike GLA, I do find that the area colored dark blue and labeled "artificial seasonal wetland" on the exhibit attached to the May 24, 2005 EIP memo and identified by a black and white boundary line labeled "non-jurisdictional depression" on exhibit 5D of the February 3 Biological Technical Report (Figure 1), is a wetland because it meets the criteria for wetland hydrology and therefore meets the Commission's one parameter criteria for an area being a wetland.

4b-143

As stated above, GLA did identify southern tarplant on the Pumpkin Patch site; primarily within the seasonal wetland on the south-east corner of the upper area (Figure 2). GLA determined that the southern tarplant population on the site did not rise to the level of ESHA. During our site visit I also observed scattered patches of a few individual southern tarplants as well as the larger concentration of southern tarplant in the north-east corner in the seasonal wetland (Figure 2). When determining whether a rare plant or animal population rises to the level of ESHA we take several things into consideration including:

- Number of individuals in the population
- Size of the area occupied by the population
- Degree of isolation and level of fragmentation of the population
- Connectivity to other natural areas/open space suitable to the species
- Level of disturbance/degradation of the area occupied by the population
- Adjacent development and other disrupting activities (and the legality thereof)
- Level of invasion by non-native species
- Potential jeopardy to regional populations by loss of the respective population

4b-144

The southern tarplant on the Pumpkin Patch site consists of a relatively small number of individuals concentrated in the north-east corner of the site. This small southern tarplant population is fragmented as well as isolated from other populations in the area. The upper area of the Pumpkin Patch site with southern tarplant is extremely degraded

4b-145

J. Engel memo re: Synergy Oil

July 25, 2017

consisting primarily of compacted fill material on top of a former landfill. I do not believe that the physical and biological factors of the site are suitable for supporting a persistent, self-sustaining southern tarplant population. Furthermore, other more robust populations of southern tarplant are thriving within the larger Los Cerritos Wetlands area. For these reasons, I concur with GLA and find that the southern tarplant population on the Pumpkin Patch site does not rise to the level of ESHA.

4b-145
(cont.)

Long Beach City Property Site

The City Property site is an approximately 33-acre site located at 2nd Street and Shopkeeper Road. The site is bound by Shopkeeper Road to the west, 2nd Street to the north, undeveloped land to the east, and the San Gabriel River to the south. The southern end of the City Property abuts the north-east edge of the Pumpkin Patch Site. The City Property site has supported oil activities for many years and is scattered with road, oil wells, aboveground pipes, and an area of oil tanks. Like the Synergy Oil Field site, the oil infrastructure on the site is surrounded by areas of non-tidal (alkali meadow, southern willow scrub) and tidal wetlands (southern coastal brackish marsh, southern coastal salt marsh) that are in very good condition as well as degraded (ruderal) upland and wetland areas (Figure 5).

4b-146

A significant population of rare southern tarplant occurs within areas of native alkali meadow, mulefat scrub, and coastal brackish marsh on the City Property. Scattered southern tarplant individuals also occur in highly disturbed gravel and poor soil areas around the existing tank farm and oil field infrastructure (Figure 6). As part of the proposed project, the tank farm would be removed and it is possible that this area would need to undergo soil remediation following removal. I find that the bulk of the southern tarplant population on the City Property that is associated with the alkali meadow, mulefat scrub and coastal brackish marsh is thriving and unfragmented and therefore rises to the level of ESHA. However, the scattered individuals around the tank farm and oil infrastructure are fragmented within a very disturbed area with poor soil and therefore do not rise to the level of ESHA.

4b-147

During our site visit, we were told that the alignment of the proposed project pipeline through the City Property, that originally impacted a corner of mulefat scrub and a stretch of alkali meadow, had been changed to avoid all direct impacts to native habitat. We walked the new proposed project pipeline alignment, along the easternmost existing road bed, and confirmed that what was described to us as the new alignment does avoid direct impacts to native habitat, wetland or otherwise. However, I have not been provided with maps that confirm the revised alignment we walked at the site. Thus, I am unable to confirm at this time that the proposed project avoids impacts to native habitat and wetlands on the City Property.

4b-148

Los Cerritos Wetlands Authority Site

The Los Cerritos Wetlands Authority site consists of an approximately four-acre parcel located at the northeast corner of the 2nd Street and Studebaker Road intersection. The site is bound by Westminster Avenue to the south and Studebaker Road to the west, and is adjacent to buildings associated with industrial uses to the north and east. The

4b-149

J. Engel memo re: Synergy Oil

July 25, 2017

site is proposed for oil well consolidation; it does not support any wetlands or any species or habitat that meet the definition of ESHA.

↑
4b-149
(cont.)

Synergy Oil Field

The Synergy Oil Field consists of an approximately 150-acre property located at 6433 E. 2nd Street. The site is bound by Pacific Coast Highway to the west, 2nd Street to the south, Studebaker Road to the east and the Los Cerritos Channel to the north. It supports a rich array of native wetland and upland habitats (Figure 7) as well many degraded and ruderal areas all interspersed with oil field infrastructure. The northern portion of the site is dominated by Steamshovel Slough which is a highly valued and relatively pristine tidal wetland that supports a wide array of native organisms including plants, invertebrates, fish, and birds.

4b-150

GLA provides a detailed description of the wetland and terrestrial resources within the Synergy Oil Field in the February 3, 2017 Technical Biology Report and the June 2, 2017 ESHA memo. As mentioned above, the site currently supports large areas of native wetlands and uplands. Two rare plant populations occur on the site including estuary seablight (*Sueda esteroa*, S2) and southern tarplant. The estuary seablight occurs in wetland habitat within Steamshovel Slough (Figure 8). The southern tarplant occurs in both non-wetland and wetland areas and there are three populations on the site that show large patches or a large number of small concentrated patches of tarplant that I find rise to the level of ESHA because of their size or number of patches, the health of the plants, and the proximity to each other (Figure 8, purple circles).

4b-151

The ultimate goal of the proposed project at the Synergy Oil Field site is to restore all 150 acres to native wetland and upland habitat. The project is proposed to occur in two phases with Phase 1 occurring upon receipt of the permit and Phase 2 within 40 years of Phase 1. Phase 1 would establish the Upper Los Cerritos Wetlands Mitigation Bank and public access trail on the northerly 76.52 acres of the Synergy Oil Field (formerly known as the Bixby Oil Field). Phase 2 would occur on the southerly 73.07 acres of the Synergy Oil Field.

4b-152

The development footprint for Phase 1 of the proposed project is shown as an area bounded by a white line with white diagonal lines (Figure 8). The restoration work is concentrated on the slopes surrounding the north and east boundaries of the property surrounding Steamshovel Slough that support native and non-native upland habitat and includes work to create tidal channels in degraded wetland habitat that is currently mapped as unvegetated wetland, pickleweed and Parrish's glasswort patches, and a large patch of southern tarplant. Additionally, Phase 1 includes development of a berm running in a diagonal from the north-west corner of the property to the south-east corner of the property that separates Phase 1 of the project from Phase 2 of the project². The berm footprint impacts degraded wetland habitat consisting of unvegetated wetland; pickleweed, saltgrass, and Parrish's glasswort patches; and a small patch of southern tarplant.

4b-153

² It is important to note, that obsolete pipelines, oil tanks, roads, and some wells will be removed from the Phase 2 portion of the project during Phase 1.

J. Engel memo re: Synergy Oil

July 25, 2017

Section 30233 of the Coastal Act is the policy that identifies the allowed uses and protection for wetlands and Section 30240 is the policy that identifies the allowed uses and protection of ESHA. Both of these policies allow impacts to these types of habitat for the purpose of restoration if no less environmentally damaging alternative is feasible. However, the type and aerial extent of the impacts to the respective habitats must be identified and fully mitigated. The type and amount of mitigation is determined on a case by case basis and includes consideration of the proposed development, the type and quality of the wetland or ESHA habitat being impacted, and whether the impact is temporary or permanent. The Commission has previously found that mitigation for wetlands at a 4:1 ratio and for terrestrial ESHA at 3:1 ratio is appropriate under the Coastal Act. These ratios may be increased or decreased depending on the respective circumstances of the proposed project and site.

4b-154

J. Engel memo re: Synergy Oil

July 25, 2017



Figure 1. Exhibit 5D from the February 3, 2017 Biological Technical Report showing the Pumpkin Patch Site and the depressed area in the south-east corner of the site.

J. Engel memo re: Synergy Oil

July 25, 2017



Figure 2. Exhibit 4 from the May 3, 2017 GLA ESHA Memorandum showing the Pumpkin Patch Site and the location of southern tarplant in green in the south-east corner of the site.

J. Engel memo re: Synergy Oil

July 25, 2017

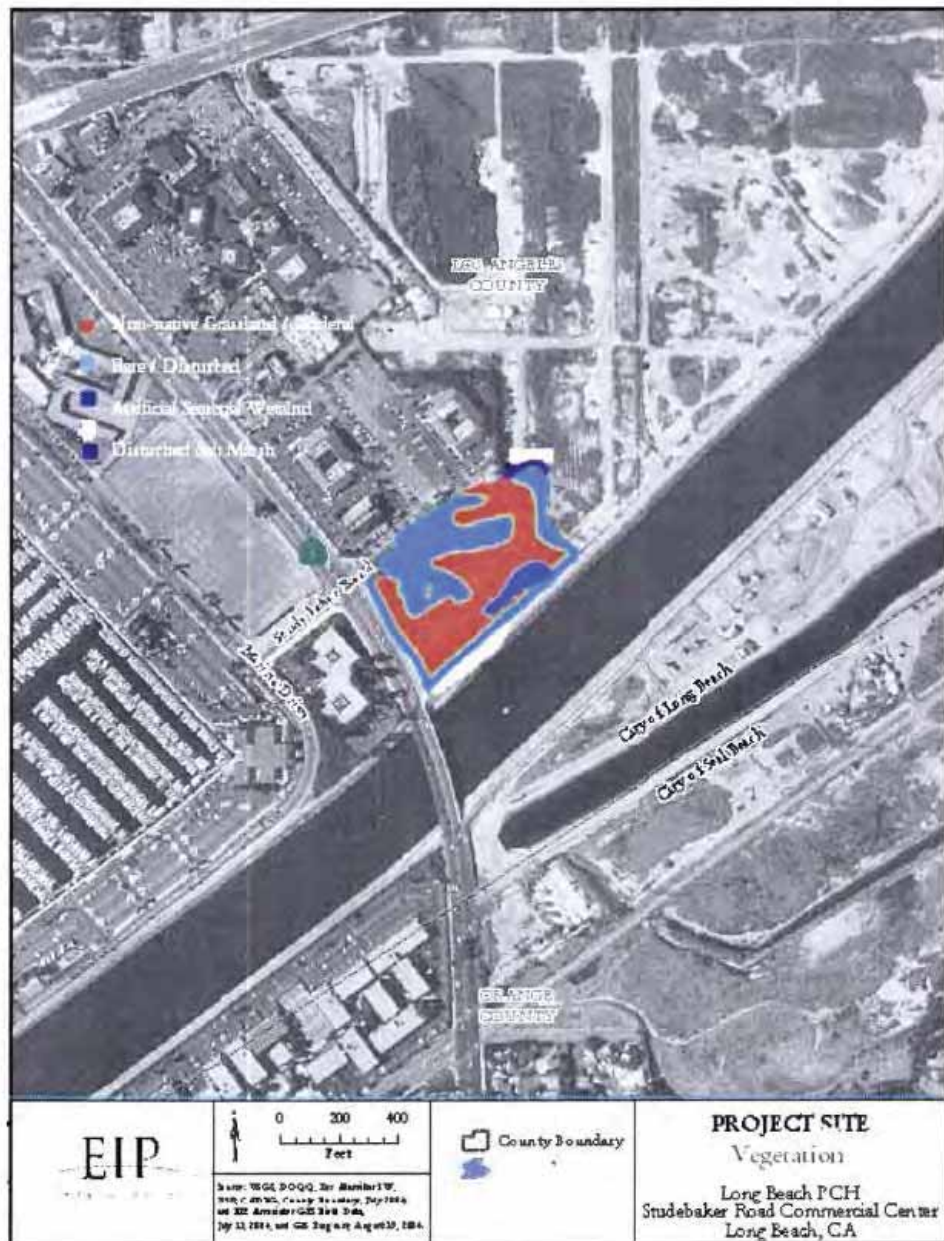


Figure 3. Exhibit from the May 24, 2005 EIP Associates Technical Memo showing the Pumpkin Patch Site with the area they identify as the "artificial seasonal wetland" colored bright blue.

J. Engel memo re: Synergy Oil

July 25, 2017



Figure 4. Photos of the south-east corner of the Pumpkin Patch. Top photo – view looking north of the depressed area. Bottom photo – Close up showing soil cracks, sand spurry, and southern tarplant.



Figure 5. Exhibit 7 of the May 3, 2017 GLA ESHA memo showing the mapped vegetation on the Long Beach City Property Site as well as the old location of the proposed pipe route shown as diagonal white lines and a white border.

Responses to Comment Letters 4a and 4b

Response 4a-1

The comment is an email transmittal letter from the State of California Coastal Commission (CCC) submitting a comment letter as a PDF attachment and thanking the City for accepting late comments.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 4b-1

The comment is an introductory paragraph to CCC's comment letter on the Draft EIR, and includes a summary of the project description.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 4b-2

The comment addresses the location of the project and notes that the entire project site is within the coastal zone. The comment notes that the Pumpkin Patch site is within the City's certified Local Coastal Program (LCP), but that the other three sites are within the City's Southeast Area Development and Improvement Plan (SEADIP) but were not included in the City's certified LCP, and, therefore, requires a Coastal Development Permit (CDP) from CCC. CCC notes that although the SEADIP is being updated, it is unlikely to be approved and certified by CCC prior to CCC's consideration of the proposed project; therefore, all of the sites that comprise the project site would require a CDP from CCC.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. The City is aware that CCC has permit authority for three of the four sites that make up the project site. Therefore, the City has requested that CCC process a consolidated coastal development permit pursuant to Coastal Act Section 30601.3.

Response 4b-3

The comment states that the City and Applicant have requested a consolidated permit to allow CCC to review the entire project.

Refer to Response 4b-2. On July 1, 2014, the City Council adopted Resolution RES-14-0058 allowing for the initiation of a consolidated coastal development permit process pursuant to Coastal Act Section 30601.3, and notified CCC by letter dated September 9, 2014, that it intends to request a consolidated coastal development permit.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 4b-4

The comment states that the standard of review that CCC would use to analyze the consolidated coastal development permit is Coastal Act Chapter 3 with the City's LCP used as guidance. The comment also states

that the City would be required to amend its LCP to reflect changes in zoning on the Pumpkin Patch site, and that CCC review and approval of the LCP amendment would precede CCC's consideration of the CDP.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. As described in Draft EIR Section 2.7, *Intended Use of the EIR and Project Approvals*, the City has identified a LCP Amendment as one of the approvals required of the City, and has also recognized that CCC will be requested to consider applications for an LCP amendment, and a consolidated CDP.

Response 4b-5

The comment recommends that an alternative pipeline alignment across the City Property site be considered and evaluated in the EIR. The comment expresses concern with placing a pipeline through the middle of the site because it could fragment the wetlands and habitat on the site. The comment acknowledges that CCC's biologist had discussed with the Applicant's biologist the alignment described in Alternative 5 (placing the pipeline along the easternmost road through the site). The comment requests evaluation of the feasibility of routing the pipeline along the western edge of the site along Shopkeeper Road, and then west along the edge of 2nd Street (Perimeter Alignment). CCC acknowledges that this suggested alignment may have more impacts to wetlands, but could reduce fragmentation of the wetlands and ESHA across the rest of the site.

The City had previously considered an alignment that would run along the perimeter of the City Property site, but had rejected that alignment for inclusion in the Draft EIR because it would result in greater wetland impacts than the proposed project. CEQA Guidelines Section 15126.6(b) requires that the "discussion of alternatives shall focus on alternatives to the project or its location, which are capable of avoiding or substantially lessening any significant effects of the project." Because a pipeline alignment along the perimeter of the City Property site would increase—not lessen—the impacts to biological resources, this alternative was not included for further consideration in the Draft EIR. Moreover, for the reasons discussed below, this alternative would present other environmental and safety impacts that the proposed project and Alternative 5 would not, and was rejected for further consideration for those reasons as well.

In response to the comment's request, the City has evaluated the potential environmental impacts of the Perimeter Alignment beginning with an analysis of potential impacts to biological resources, and the other environmental impacts considered in the EIR.

Biological Resources

There are coastal wetlands that would occur along the Perimeter Alignment that routes the pipeline north from the Pumpkin Patch site, along the western edge of the City Property site (along Shopkeeper Road) and then turning east and running west along the northern edge of the City Property site (along 2nd Street).

The Perimeter Alignment would result in more direct impacts to wetlands than both the proposed project alignment and Alternative 5. As shown on **Table 9-2, Comparison of Direct Vegetation Impacts, City Property Site—Pipeline Corridor Alignments**, that compares the habitat impact of the proposed project, Alternative 5, and the Perimeter Alignment, this alignment would result in impacts 0.96 acre of coastal wetland to accommodate construction and a permanent 26-foot-wide pipeline corridor, and almost an acre more of habitat impacts as compared to the proposed project and Alternative 5, which notably will not result in any wetland impacts.

Table 9-2 Comparison of Direct Vegetation Impacts, City Property Site—Pipeline Corridor Alignments

	Proposed Project (acres)	Alternative 5 Alignment (acres)	Perimeter Alignment (acres)
Upland Alliances			
Development	0.12	0.00	0.99
Ornamental	0.05	0.08	0.12
Ice Plant Mats	0.01	0.00	
Annual Non-native Grassland	0.01	0.02	0.05
Ruderal Uplands (e.g., <i>Carpobrotus edulis</i> or Other Ice Plants Semi-Natural Herbaceous Stands [Ice plant mats and/or <i>Bassia hyssopifolia</i> Semi-Natural Herbaceous Stands Five-horn smotherweed thickets])	0.30	0.33	0.35
Vegetation Free Zone (Unvegetated Flats [Upland])	1.14	1.46	0.39
<i>Upland Alliances Subtotal</i>	<u>1.63</u>	<u>1.89</u>	<u>1.90</u>
Wetland Alliances			
Mulefat Scrub (<i>Baccharis salicifolia</i> Shrubland Alliance [Mulefat Thickets]) (G5S4)	0.02	0.00	0.00
Ruderal Wetlands (<i>Bassia hyssopifolia</i> Semi-Natural Herbaceous Stands Five-horn smotherweed thickets). In addition, some areas mapped as Ruderal Wetlands consist of <i>Cress truxillensis</i> – <i>Distichlis spicata</i> Herbaceous Alliance [Alkali weed – saltgrass flats]) (G4S4)	0.14	0.00	0.48
Southern Coastal Brackish Marsh (<i>Typha domingensis</i> – Herbaceous Alliance [Cattail Marshes]) (G5S5). Includes areas also containing pickleweed mats and saltgrass flats.	0.001	0.00	0.42
Alkali Meadow (<i>Frankenia salina</i> Herbaceous Alliance [Alkali heath marsh]) (G4S3) and or <i>Distichlis spicata</i> Herbaceous Alliance [Saltgrass Flats]) (G5S4)	0.15	0.00	0.06
<i>Wetland Alliances Subtotal</i>	<u>0.31</u>	<u>0.00</u>	<u>0.96</u>
Grand Total	<u>1.94</u>	<u>1.89</u>	<u>2.86</u>

NOTE: Pipeline alignments are sourced by Glenn Lukos Associates. Vegetation alliances were provided by the City of Long Beach.

In addition to consideration of potential impacts to wetlands, an assessment of how each of the alignments would affect the population of southern tarplant on the City Property site was also undertaken. Updated surveys were conducted by the Applicant's biological consultant, Glenn Lukos Associates (GLA), on the City site for southern tarplant in September 2017. A total of 6,901 individuals were detected. The City Property site contains populations of southern tarplant throughout the site. Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure exhibits potential for impacts to southern tarplant since this species occurs on and adjacent to many of the disturbed pads where the activities will take place [revised Figure 3.3-2b, City Property Site—Special-Status Plants Map, included in the Errata of this Final EIR]. Care will be taken to avoid this species during the installation and removal process; however, in the event that impacts to southern tarplant occur, the Applicant will restore the impacted area by removing any material that was not present prior and reseeding, as necessary, any area where southern tarplant has been significantly affected. Based on the updated 2017 tarplant data, the project would result in the following impacts:

Proposed Pipeline Alignment: 191 Individuals

Alternative 5 Alignment: 55* Individuals

Perimeter Alignment: 736 Individuals

Sidewalk Construction Only: 305 Individuals

* This impact may be avoided due to the distribution of plants along the outer perimeter of the access road.

** These individuals were included in the Perimeter Alignment impacts as the pipeline alignment overlaps with the sidewalk construction impacts. If the Proposed Pipeline Alignment or Alternative 5 Alignment were implemented, this impact would also occur assuming sidewalk construction.

Although the City has identified in the EIR that impacts to the southern tarplant could be mitigated through translocation to suitable areas within the restored areas on a 1:1 basis based on counts conducted during 2017, which was an optimal year for southern tarplant, the southern tarplant associated with the alkali meadow, mulefat scrub, and brackish marsh has been identified by CCC's biologist as an Environmentally Sensitive Habitat Area (ESHA). In accordance with Coastal Act Section 30240, impacts to ESHA must be avoided, and therefore impacting the southern tarplant population through pipeline construction would be inconsistent with Coastal Act Section 30240.

Although, as CCC has noted, the alignment that runs along the perimeter of the City Property site would not bisect the habitats on the City Property site, it would not necessarily be consistent with the LCWA Conceptual Restoration Plan (CRP) because it would not provide a physical separation (a berm) between future tidally influenced areas to be restored east of the City Property site and the brackish marsh located within the City Property site. The CRP places emphasis on maintaining the brackish conditions within the marsh to sustain the vegetation that is highly used by waterfowl in the area.

Although the commenter has expressed concerns regarding the potential visual impacts of the proposed pipeline alignment, the project proposes that the pipeline and utility line corridor lie within an earthen berm which provides containment in the event of a future oil leak in the pipeline. The earthen berm will screen views of the new pipelines on the City Property site. Although both the proposed project's alignment and the alignment described in Alternative 5 traverse the City Property site, the oil operations on the City Property site are planned to continue for 40 years, and thus the City Property site is not a candidate for wetlands restoration in the immediate future. In addition, the alignment described in Alternative 5 places the pipeline and utility line corridor on an existing oil road. The oil road is currently unvegetated upland, and will not result in impacts to wetlands or sensitive habitat, and thus the alignment analyzed in Alternative 5 will have less impacts than the alignment requested to be analyzed by CCC staff. The oil roads that traverse the City Property site will also continue to be used and remain a part of the property for as long as oil operations are maintained on the City Property site, i.e., approximately 40 years. Finally, the City Property site proposed wetlands restoration plan has been prepared by LCWA, and includes two distinct areas of wetlands. The western portion of the City Property site is proposed for restoration as a freshwater wetland, and the eastern area is proposed for salt water marsh restoration. Thus, although the pipeline bisects the City Property site, the pipeline corridor can provide separation between these two distinct habitat areas.

In addition to an analysis of potential biological resource impacts, the following impacts are also addressed:

- **Aesthetics:** As with the proposed project and Alternative 5, the Perimeter Alignment would construct the aboveground pipeline and utility corridor on the City Property site adjacent to 2nd Street and Shopkeeper Road. Neither of the streets are considered scenic highways and given that pipeline corridor will be below the road grade, and the containment berm is only 12 inches in height, no

impacts to scenic vistas and no impact to scenic resources within a scenic highway are anticipated. Under this alternative, security lighting associated with construction on the City Property site would still occur, and similar to the proposed project, given the temporary nature of these lights, impacts would be less than significant. Therefore, all impacts related to aesthetics would be similar under this alternative to those identified for the proposed project.

- **Air Quality:** Impacts related to air emissions are directly related to the amount of construction that would be required for the proposed project. The Perimeter Alignment is approximately 1,000 linear feet longer than the proposed project. The length of the proposed project's pipeline is approximately 2,500 feet long, whereas the Perimeter Alignment would be approximately 3,550 feet long. The additional length would lengthen the construction period and the amount of grading, thereby proportionately increasing air quality impacts. The proposed project would require approximately 4,400 cubic yards of grading and the Perimeter Alignment would require 6,400 cubic yards of grading (Letter from Wilson Mikami Corporation re Los Cerritos Wetlands Oil Consolidation and Restoration Project – City Site Pipeline Corridor Perimeter Alignment, dated October 26, 2017). As the construction emissions for NO_x were determined to exceed the SCAQMD threshold of significance (refer to Draft EIR Table 3.2-8), the longer pipeline would incrementally increase the NO_x emissions as compared to the proposed project. As the Perimeter Alignment is 42 percent longer than the proposed project, the emissions for the pipeline construction would be approximately 42 percent greater. Moreover, the construction activities would be closer to sensitive receptors, i.e., the retail center, as compared to the proposed project alignment. The Perimeter Alignment would generate similar operational emissions as the project. Although there is an incremental increase, the level of significance (significant and adverse), would not change (Memorandum from Greve & Associates, LLC re Air Quality/GHG and Noise Impact Comparison for BOMP Interconnecting Pipeline, dated October 27, 2017). Lastly, the incremental increase in grading and construction emissions would also increase toxic air contaminants generated by Project construction equipment. Infant cancer risk would increase from 1.87 to 2.81 in one million, and the maximum incremental cancer risk would increase from 4.41 to 5.35 in one million—all of which would still be below the significance thresholds and thus would remain less than significant (Memorandum from SWAPE re Health Risk Assessment for the Los Cerritos Wetlands Oil Consolidation and Restoration Project – Pipeline Alignment Memorandum, dated October 27, 2017).
- **Cultural Resources:** The Perimeter Alignment would result in similar levels of construction as the proposed project except that it is approximately 1,000 feet longer than the proposed project. No known archaeological resources have been recorded along the perimeter of the City Property site. Similar to the proposed project, with mitigation, this alternative would not cause a substantial adverse change in the significance of an archaeological resource. This alternative would be required to implement mitigation measures in order to prevent potential impacts to paleontological resources. Lastly, this alternative would result in similar potential impacts to human remains during construction. Overall, this alternative would have the same impacts to cultural resources as the proposed project.
- **Geology, Seismicity, and Soils:** Similar to the proposed project, and Alternative 5, the Perimeter Alignment would still cross the Newport-Inglewood Fault Zone to connect the Pumpkin Patch and LCWA sites, thus having similar impacts related to fault rupture as the proposed project. Similar to the proposed project, this alternative would not expose people or structures to potential substantial adverse effects as a result of strong seismic ground shaking. The Perimeter Alignment with mitigation similar to the proposed project would not expose people or structures to potential substantial adverse effects as a result of seismic-related ground failure, including liquefaction. This alternative would also be required to develop consistent with the requirements of the CBC. Although construction of the pipeline along the perimeter of the City Property site would result in incrementally greater ground disturbance than the proposed project because of its length, it would still have similar construction

impacts as the proposed project. Overall, impacts to geologic hazards and soils would be the same under this alignment to those identified for the proposed project.

- **Greenhouse Gas Emissions:** Construction and operational GHG emissions would be slightly greater than the project, given its increased length and additional grading for constructing the Perimeter Alignment pipeline. Thus, impacts would be similar to the project and less than significant with mitigation (Memorandum from Greve & Associates, LLC re Air Quality/GHG and Noise Impact Comparison for BOMP Interconnecting Pipeline, dated October 27, 2017).
- **Hazards and Hazardous Materials:** The Perimeter Alignment would require the placement of oil pipelines, gas and other utility lines alongside 2nd Street, which is a major arterial in the City that carries considerable traffic throughout the day. The Perimeter Alignment increases the risk of a potential accident where an automobile could run into, or damage the pipeline as compared to the alignments that are internal to the City Property site. In addition, because this alignment runs along the perimeter of the City Property site, it is a longer pipeline than either the alignment reflected in the proposed project or Alternative 5. The total line fill volume for a pipeline using the perimeter alignment is 23,500 gallons as compared to 16,600 gallons for the proposed project, and in the event of a rupture of the pipeline, this would result in a total spill of 37,773 gallons as compared to 30,816 gallons that could be released in the event of a rupture in the proposed project's alignment.
- **Sea Level Rise:** The existing topography of the City Property site was examined in connection with its adjacency to the San Gabriel River and the potential for sea level rise to affect the City Property site. The topographic elevation of the City Property site adjacent to the San Gabriel River levee varies from +3 to +5 feet NGVD29. The crest elevation of the San Gabriel River levee adjacent to the existing culvert that provides storm runoff drainage for the City Property site is +14.2 feet NGVD29. The measured highest tide elevation in this region is +5.3 feet NGVD29. With the project high end of sea level rise of 5.5 feet in year 2100, the extreme water level will be at +10.7 feet NGVD29, which is 3.5 feet lower than the levee crest elevation. Therefore, because the levee is higher than the extreme projected water level, the levee will provide protection to the City Property site under projected sea level rise conditions (Letter from Moffatt & Nichol re Culvert Connecting the City Site and the San Gabriel River, dated October 27, 2017).
- **Hydrology and Water Quality:** The containment berms for the pipeline corridor will inhibit the flow of storm water and nuisance runoff across the pipeline corridor. The tributary drainage area to the marsh area within the City Property site is located to the west and includes the existing commercial site. The Perimeter Alignment containment berms will have a greater impact on the hydrology supporting the marsh as compared to the proposed project and Alternative 5 due to its location between the marsh and the tributary drainage area to the west of the marsh (Letter from Wilson Mikami Corporation re Los Cerritos Wetlands Oil Consolidation and Restoration Project – City Site Pipeline Corridor Perimeter Alignment, dated October 26, 2017).
- **Land Use and Planning:** The Perimeter Alignment would have the same impacts as the proposed project.
- **Mineral Resources:** The Perimeter Alignment would have the same impacts as the proposed project.
- **Noise:** Impacts related to noise are directly related to the amount and duration of construction that would be required for the pipeline corridor. The Perimeter Alignment is approximately 42 percent longer than the proposed project, and would require a longer duration of construction activity as compared to the proposed project. The additional length would lengthen the construction period, thereby proportionately increasing short term construction noise impacts. In addition, construction of the Perimeter Alignment would bring noise generating construction equipment much closer to the shopping center than the proposed project. Stores in the shopping center would be approximately 200 feet from pipeline construction under the Perimeter Alignment, but the distance would be

approximately 1,100 feet for the proposed project. Heavy equipment operating along the Perimeter Alignment could be 15 dB louder than the same equipment operating along the proposed project alignment. However, construction noise impacts are considered short-term and temporary, and the level of significance would be the same. The Perimeter Alignment would generate similar long term operational noise as the project (Memorandum from Greve & Associates, LLC re Air Quality/GHG and Noise Impact Comparison for BOMP Interconnecting Pipeline, dated October 27, 2017).

- **Population and Employment:** The Perimeter Alignment would have the same impacts as the proposed Project.
- **Public Services:** The Perimeter Alignment would have the same impacts as the proposed Project.
- **Recreation:** The Perimeter Alignment would have the same impacts as the proposed Project.
- **Transportation and Traffic:** Construction of the Perimeter Alignment would increase the duration of project construction and depending upon the construction method and precise alignment in relation to the property line, Shopkeeper Road and 2nd Street, temporary closures of the outside lane and bike lane (where available) would occur intermittently to provide a work zone for pipeline installation, and would therefore have a greater impact than the proposed project or Alternative 5 (Memorandum from Pirzadeh & Associates re BOMP Alternative Pipeline Alignment, dated October 27, 2017).
- **Tribal Cultural Resources:** The Perimeter Alignment would have the same impacts as the proposed Project.
- **Utilities and Service Systems:** The Perimeter Alignment would have the same impacts as the proposed project.
- **Energy Consumption:** The Perimeter Alignment would have the same impacts as the proposed project.

In conclusion, based upon the analysis above regarding the Perimeter Alignment, as compared to either the proposed project or Alternative 5, the Perimeter Alignment would result in greater environmental impacts, including wetlands, habitat and safety impacts, than Alternative 5 or the proposed project. Because this alternative would not help reduce or avoid environmental impacts, but would result in greater impacts, the Perimeter Alignment would be inconsistent with CEQA's direction to consider alternatives that avoid or substantially lessen any of the significant effects of the project.

Response 4b-6

The comment states that the Draft EIR states that there may be a need for remediation at several locations within each of the four properties, and requests a specific description of the proposed activities associated with remediation.

Draft EIR Section 3.7.2.2, Hazardous Materials at the Four Individual Sites, provided a description of the nature of the potential contamination on each of the four sites and described the testing that had been conducted, the post-Draft EIR testing to be conducted to obtain more information regarding the geographical extent of the contamination, and described the remediation work (e.g., excavating and removing the contaminated soils) that would be implemented to address any contamination issues identified. Each of the four sites is discussed below and include discussions of the results of the post-Draft EIR sampling.

Synergy Oil Field Site

The Applicant has conducted a series of soil sampling and tests of various areas where hydrocarbon contamination was identified on the Synergy Oil Field site. The Phase 2 testing was described on Draft EIR

p. 3.7-6, and a map of the sampling locations was included at Draft EIR Figure 3.7-2, Sample Locations—Synergy Oil Field and City Property Sites, p. 3.7-7. Subsequent to the Draft EIR, additional sampling was conducted as documented in the following report:

- Advanced Environmental Concepts, AEC 2017f, *Synergy Oil Field Continuing Sample Report Tank Battery Locations HA-3, HA-5 and HA-17, East 2nd Street and Pacific Coast Highway, Long Beach, California*, October 10

The soil sampling and analysis conducted subsequent to the Draft EIR verified the estimated volume of soil requiring remediation at 24,200 tons. For just the 2016 to 2017 investigations, 49 borings were drilled and 103 samples were analyzed for contaminants. To better illustrate the sampling locations and planned areas to be excavated, Figure 3.7-2 has been split into Figure 3.7-2a, Sampling Locations, and Figure 3.7-2b, Areas to be Excavated.

The purpose of the test program was to identify areas where concentrations of chemicals, especially petroleum hydrocarbons, were detected in the soil, and then to more accurately characterize the geographical extent of the contamination (refer to Draft EIR Section 3.7.3, Regulatory Framework, for discussion of screening levels). Starting with 16 sampling locations, the Applicant's consultant, AEC, identified 4 locations on the Synergy Oil Field site where detectable amounts of hydrocarbon concentrations were identified. Additional soil samples at these locations were then collected at 1 foot, 3 feet, and 6 feet below ground surface (bgs). Additionally, soil samples extending out at "staggered" increments of 20 feet in each of the four cardinal directions were collected to further identify the extent of hydrocarbon-impacted soils. Based upon the Phase 2 testing that has been completed, crude oil-type hydrocarbon contamination has been identified at location HA-3 and subsequent step-out samples; at location HA-5 and subsequent step-out sampling; at location HA-12 and subsequent step-out sampling, and at HA-17N-50 (on the City Property site). Draft EIR p. 3.7-27 identified the potential that as much as 24,200 tons of soil would be excavated from these areas if removal is determined by the RWQCB to be the preferred form of remediation. Should excavation be required, the soil would be removed and would be hauled to a disposal facility permitted to accept such waste, such as the Simi Landfill in Simi Valley. Whether and to what extent excavation and disposal would be required, as opposed to other forms of remediation such as on-site bioremediation or capping, is subject to agency direction and oversight. For this area of soil contamination, the RWQCB is the agency with oversight on directing appropriate remediation and mitigation.

Based on soil concentrations obtained during the Phase 2 testing work, the Applicant's environmental consultant, AEC, believes that once remediation has been completed, the site could be closed under the RWQCB Low-Threat Policy Closure Guidelines, which became effective during August 2012. The general criteria that must be satisfied by all candidate sites are listed as follows:

- a. The unauthorized release is located within the service area of a public water system;
- b. The unauthorized release consists only of petroleum;
- c. The unauthorized (primary) release from the underground storage tank (UST) (or aboveground storage tank [AST]) system has been stopped;
- d. Free product has been removed to the maximum extent practicable;
- e. A conceptual site model (CSM) that assesses the nature, extent, and mobility of the release has been developed;
- f. Secondary source has been removed to the extent practicable;

- g. Soil or groundwater has been tested for methyl tert-butyl ether (MTBE) and results reported in accordance with Health and Safety Code Section 25296.12; and
- h. Nuisance as defined by Water Code Section 13050 does not exist at the site.

The process to utilize the Low-Threat Closure is well-documented and requires implementation of certain prescribed measures, including groundwater sampling from a minimum of three dedicated groundwater wells and conducting a soil gas survey within the boundaries of the hydrocarbon migration. There are also published Low-Threat Closure comparative standards for soil gas, soil, and groundwater constituents for specific hydrocarbon concentrations that need to be achieved to receive closure. The approximate dimensions of the crude oil-impacted area around HA-3 as determined by the 1-foot sampling is 280 feet long by 100 feet wide by 2 feet deep. The approximate dimensions of the crude oil-impacted area around HA-3 as determined by the 3-foot sampling is 130 feet long by 40 feet wide by 2 feet deep. The approximate dimension of the crude oil-impacted area around HA-3, as determined by the 5-foot and 6-foot sampling, is 40 feet long by 40 feet wide by 2 feet deep. In addition, the approximate dimension of the crude oil-impacted soil proximal to HA-12 is 30 feet long by 30 feet wide by 1 foot deep. The approximate dimension of the crude oil-impacted soil proximal to HA-17N-50 is 20 feet long by 20 feet wide by 2 feet deep.

As discussed above, if the RWQCB determines that the Low Threat Policy Closure Guidelines is not applicable, some other form of remediation, such as on-site treatment or excavation and removal, would be implemented. The Draft EIR included a “worst-case” analysis assuming that all of the contaminated soils would require removal and transport off site.

Another of the sampling locations, HA-9, was formerly used for disposal of various debris and waste including used oil filters from the horsehead pumping units. This debris has been partially incinerated as a means of waste minimization and surface and near surface soil exhibit elevated concentrations of lead and zinc metals. AEC proposes to remove the metals-impacted soil from an approximate 100 feet by 40 feet by x 2 feet deep area and dispose of the soil and debris at an off-site Class I landfill, such as Waste Management Kettleman Hills. This remediation measure was described on Draft EIR p. 3.7-27.

City Property Site

On the City Property site, AEC has conducted Phase 2 testing at two sampling areas and the results are included in the above-referenced AEC 2017f. The location of the initial sampling site HA-16 was depicted in Draft EIR Figure 3.7-2 (and its update as Figures 3.7-2a and 3.7-2b in Chapter 10, *Draft EIR Revisions*) and the test program and results from December 22, 2016, were described on Draft EIR p. 3.7-8. The soil sample collected from HA-16 at a depth of 1 foot bgs, in the extreme northeast portion of the site, was analyzed for TPH in the gasoline, diesel, and oil range, lead and arsenic. The results were either below detection levels or at low concentrations below screening levels (refer to Draft EIR Section 3.7.3, Regulatory Framework, for discussion of screening levels). Additional Phase 2 testing was conducted on August 22, 2017, for the area around the two large storage tanks in the southwest part of the City Property (referred to as HA-17). In this location, similar to the Synergy Oil Field site, AEC sampled along each of the four cardinal directions from the aboveground storage tanks and collected soil samples from each sample point at 1 foot, 3 feet, and 5 feet bgs. Based upon the Phase 2 work conducted at the storage tank area on the City Property site, AEC has determined that there is a small area of visible “crude” hydrocarbons in the area of HA-17N-50 at a depth of 1 foot bgs that indicated concentrations of diesel and oil-range hydrocarbons. However, the samples collected at 3 feet and 5 feet bgs exhibited negligible detections of TPH. Also, the sample at 1 foot bgs indicated primarily non-

detectable concentrations of VOCs. Similar to the hydrocarbon impacted soils at the Synergy Oil Field site, the Applicant would be required to consult with the RWQCB to determine the best way to effect remediation. Should excavation and removal be required, this work would be included in the 24,200 tons of material described on Draft EIR p. 3.7-27 that would be removed from the site and transported to an appropriate landfill permitted to accept the material, such as the Simi Landfill.

Pumpkin Patch Site

Draft EIR p. 3.7-9 describes the presence of a closed landfill on the western two-thirds of the Pumpkin Patch site, and the history of soil and groundwater testing that has been conducted on the landfill area on the Pumpkin Patch site. If it is determined that excavation of the landfill materials is required, the Draft EIR describes the methods by which the municipal waste would be excavated; how and where wet trash would be dried before it is removed; and how all removed landfill materials would be transported off site on Draft EIR pp. 3.7-34 through 3.7-35. As discussed in the Draft EIR, the work would include removing the dry trash from the site and hauling to a disposal facility, followed by removing wet trash using a dredging bucket, draining that trash until it can be hauled to a disposal site. Depending upon the testing of the removed trash materials, the landfill materials would be transported to a Class I (hazardous), Class II (designated), or Class III (non-hazardous) disposal facility. It is estimated that approximately 63,000 cubic yards of waste would be exported.

In addition, a soil vapor survey was conducted on the Pumpkin Patch site on July 6, 2017. The sampling and analytical results are provided in the following reports:

- ALS, 2017, *Laboratory Report, Pumpkin Patch*, July 21
- Optimal Technology, 2017, *Pumpkin Patch Soil Vapor Investigation Letter Report*, July 7

The detected chemicals include methane, various sulfur compounds, fuel compounds (gasoline, benzene, toluene, ethylbenzene and xylenes), chlorinated compounds (tetrachloroethene [PCE], trichloroethene [TCE], and dichlorodifluoromethane), cyclohexane, 4-methyl-2-pentanone, and 2-butanone (also known as methyl ethyl ketone [MEK]). The presence of these compounds indicate further action will be needed. The potential actions would be either to remove or cap the landfill. If removed, an Excavation Management Plan would be prepared and implemented, which would remove the contaminants and eliminate the potential for vapor intrusion into buildings. If capped, a cap would need to be designed with a vapor intrusion study to verify vapor would not enter buildings above air quality standards.

LCWA Site

Phase II Environmental Site Assessment (ESA) work was conducted in 2004 and described in the Phase II ESA Alamos EPTC Parcel 3-4 report. The report was prepared by CH2M Hill on behalf of Southern California Edison, the owner of the LCWA site at that time. The results of the CH2M Hill report were described on Draft EIR p. 3.7-11, and incorporated by reference. A copy of this report is on file with the City as part of the Administrative Record.

The report noted that as part of the Phase II ESA, 13 direct-push soil borings were advanced at the site. In addition, soil samples were collected from an apparent debris pit area. A total of 47 soil samples were collected for laboratory analysis. Soil samples were collected from multiple depths (0.5 foot, 5 feet, and 10 feet bgs) and analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals and chlorinated pesticides (including polychlorinated biphenyls [PCBs] at one location, in the reported

drum storage area). For background metal analyses, soil samples from three nearby locations were also collected.

Based on the results of the site investigation, CH2M Hill made the following conclusions:

- “Overall, VOC, SVOC, chlorinated pesticide, and PCB concentrations did not exceed industrial PRGs, total threshold limit concentrations (TTLC), and 10 times soluble threshold limit concentration (STLC), screening criteria in the majority of the soil and soil gas samples collected at the Site; and the soil appears to be minimally impacted.
 - “Arsenic was the only analyte for which concentrations exceeded the industrial preliminary remediation goals (PRGs). However, it should be noted that, in California, background concentrations of several metals, particularly arsenic, often exceed industrial PRGs, as reported by the Kearney Foundation Special Report on Background Concentrations of Trace and Major Elements in California Soils (1996). One soil sample, collected at 5 feet bgs and at a location considered representative of background conditions, exhibited a lead concentration that exceeded 10 times the STLC.
 - “Lead concentration in one sample and nickel and vanadium concentrations in another sample exceeded the TTLC screening criteria. However, concentrations of lead, nickel, and vanadium for the deeper samples at these two locations were below the TTLC screening criteria.
 - “Soil gas concentrations for VOCs did not exceed the conservative shallow soil gas environmental screening levels (ESLs) for the commercial/industrial land use scenario published by the San Francisco Bay Area Regional Water Quality Control Board (RWQCB) (July 2003, Updated February 2004). Thus, the VOCs detected in soil gas samples would not pose a significant impact to indoor air at a future on-site building.
- “Hydrogen sulfide gas was not detected in the 10 soil gas samples (including one duplicate) collected at the Site.
- “Methane concentrations in soil gas samples were several orders of magnitude below the lower explosive limit (LEL) of 5 percent (50,000 parts per million [ppm]).
- “No VOCs or SVOCs were detected in groundwater samples collected at the Site.”

In 2016 and 2017, AEC conducted additional Phase II investigations at the LCWA site (refer to Draft EIR p. 3.7-11). AEC used a combination of a pick and hand auger to collect the soil samples from the prescribed depths of 2 feet bgs proximal to SB-7 and 1 foot bgs proximal to SB-8. The soil samples were analyzed for the metals arsenic, nickel, and vanadium by EPA Method 6010B from the SB-7 step-outs and for the metals arsenic and lead by EPA Method 6010B in the SB-8 step-outs. The analytical results for the four soil samples collected proximal to SB-7 and four soil samples collected proximal to SB-8 were compared to the May 2016 Industrial-Use Regional Screening Levels (RSLs) and also to the TTLC criteria, which is instrumental in identifying whether a metal is a California hazardous-classified waste for landfilling purposes. The metals of concern (arsenic, vanadium, lead, and nickel) did not exceed their comparative standard with the exception of arsenic.

Arsenic is a naturally occurring metal in California soils and is problematic in evaluating human health risk since the risk-based soil concentration can be 100 times below typical ambient concentrations. As discussed on Draft EIR p. 3.7-6, the California Department of Toxic Substances Control (DTSC) established a regional background arsenic concentration in soil that can be used as screening criteria for sites in Southern California (Chernoff, Bosan, and Oudiz; DTSC 2006). The term “background” refers collectively to both naturally occurring and anthropogenic concentrations in shallow soil. Data obtained for this study were derived from

completed Preliminary Endangerment Assessments (PEAs) for proposed school sites during the 2000s from studies conducted in Los Angeles, Orange, Riverside, San Bernardino and San Diego counties. Since Los Angeles County had the largest number of sites tested (19 school sites with 1,097 samples) this data served as the model for the statistical derivation of “background” arsenic. The statistical analysis resulted in an upper-bound arsenic concentration of approximately 12 mg/kg; the derivation for the other counties having a smaller dataset also indicated an upper-bound background of 12 mg/kg. Therefore, although the on-site arsenic results exceeded their comparative RSL of 0.39 mg/kg, all samples analyzed for arsenic (ranging between 4.9 mg/kg to 12 mg/kg) were within the acceptable background range in California soils of 1 to 12 mg/kg; therefore, would not be subject to regulatory action.

Based on the absence of regulatory “actionable” concentrations of arsenic, lead, nickel, and vanadium collected from “step-out” samples proximal to prior boring locations SB-7 and SB-8, AEC recommended that the prior elevated results from the CH2M Hill investigation of December 2004 be considered an anomaly requiring no further investigation and/or remediation. In addition, CH2M Hill collected soil samples at bracketed depths around the samples exhibiting these anomalous results and the levels were within what can be considered normal “background” range.

Response 4b-7

The comment states that impacts to wetlands and other biological resources, air quality, hydrology and water quality and other natural resources from remediation activities are not addressed.

At this time, it has not been determined by the oversight agency (RWQCB) that site remediation would be required. One of the options would be for the impacted soils to remain on site. However, if remediation in the form of excavation and removal is required, there would be limited adverse impacts to air quality because the soil removed would be field screened with a PID to evaluate volatile emissions based on SCAQMD Rule 1166 Plan requirements. The excavation, similar to the proposed grading for the wetlands restoration project, would be required to comply with stormwater management and implement best management practices (BMPs) to avoid impacts to hydrology and water quality.

The impacts to biological resources, air quality, and hydrology and water quality from removal of the landfill on the Pumpkin Patch site were included as part of the Draft EIR analysis for development of the Pumpkin Patch site. The removal of the closed landfill material from the Pumpkin Patch site was described on Draft EIR p. 3.7-35. Because the Draft EIR anticipated the potential for the landfill materials to be removed, the emissions associated with removal of the landfill and truck trips transporting the material to off-site disposal facilities were examined. Finally, the biological resources on the Pumpkin Patch site have been characterized and addressed in the Biological Resources Section. Whether it be for landfill removal or grading of the site for development, the impacts to habitat areas on the Pumpkin Patch site have been anticipated, described and analyzed on Draft EIR pp. 3.3-73 through 3.3-74.

If any soil is required to be removed from the City Property site in the area of the tank farm (test location HA-17), the excavation impacts were included in the estimate of 24,200 tons of soil that would require disposal off site discussed on Draft EIR p. 3.7-27. There are no soils for which remediation would be required on the LCWA site.

Response 4b-8

The comment recommends that these remediation activities be included in the project description and incorporated into the impact analysis.

This information was included in the project description, and the worst-case scenario, suggested by the comment, was included in the Draft EIR's analysis of potential project impacts. On Draft EIR pp. 2-26 through 2-27, the Project Description described the remediation activities that would be required on the Synergy Oil Field site in connection with the removal of pipelines, tanks, and other oil field equipment. As described on Draft EIR p. 3.7-27, the Phase 2 environmental assessment identified four areas on the Synergy Oil Field site that showed areas of hydrocarbon concentration that may require remediation, the "worst-case scenario" being excavation and removal. This worst-case scenario also included the possibility that soil on the tank site on the City Property site would also require excavation and removal. The potential for remediation activities occurring on the City Property site were described on Draft EIR p. 2-43. Remediation work on the Pumpkin Patch site was described on Draft EIR p. 2-50, including the potential for removal of the buried landfill. Additional details regarding removal of the landfill were discussed on Draft EIR pp. 3.7-34 through 3.7-35. As discussed in Response 4b-6, no remedial work has been recommended for the LCWA site.

Response 4b-9

The comment recommends that the EIR quantify all impacts to wetlands and biological resources and ensure that adequate mitigation is provided for these impacts. The comment expresses concern that without an explicit quantification of impacts, there is a possibility that the restored acreage that would be created as part of the project could be used to mitigate impacts from multiple projects and not meet the no net loss of wetlands policy.

The Draft EIR and Draft EIR Appendix C1, Biological Technical Report and Jurisdictional Delineation, quantify all impacts to biological resources to a level of detail that addresses the comment and exceeds the level of detail normally found in other habitat assessments. Impacts are broken down by upland and wetland vegetation classifications, jurisdictional resources, special-status plants/animals, against both temporary and permanent means, and across all project sites. The Draft EIR identifies the mitigation ratio that would be expected to offset impacts (i.e., 2:1 for permanent and 1:1 for temporary).

Prior to impact to any jurisdictional water or wetland, resource agency permits would be required from (at minimum) the U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), RWQCB, and CCC. The respective permits from these agencies would specify the acreage and location of compensatory mitigation required to offset impacts. Any mitigation that is provided through the pending Mitigation Bank would be accounted for and, therefore, deducted from the total amount of credits from the bank. USACE requires detailed tracking of available and used credits, which are reported after each sale or use of credits and are also posted online through the USACE website. There would be no possibility for "double dipping" of credits for this project or any another subsequent project as credits are monitored and accounted for continually. Should the project mitigate elsewhere for its impacts, such as on the Pumpkin Patch site or otherwise, this would also be described in the respective permits.

The Interagency Review Team (IRT), which is made up of USACE, CDFW, RWQCB, CCC, U.S. Fish and Wildlife Service (USFWS), U.S. Environmental Protection Agency (USEPA), and National Marine Fisheries Service (NMFS), will determine the total amount of credits available within the mitigation bank. The number

of credits assigned to the bank is not a matter related to CEQA. The action being evaluated under CEQA is the project (CDP/LCP, oil drilling, buildings, restoration), and not the matter of credit tracking through the mitigation bank.

Response 4b-10

The comment requests that additional detail and analysis be provided with respect to evaluating the potential impacts associated with an oil spill, and that adequate measures are put in place to reduce the risk of an oil spill. The comment requests that the potential consequences of a catastrophic failure also be assessed.

Responses 4b-11 through 4b-14 provide an analysis of the potential impacts associated with an oil spill, the design components of the project (such as the size and capacity of the various containment berms), the installed equipment (emergency shut off systems), and the Oil Spill Response measures that would be implemented to avoid significant impacts.

Response 4b-11

The comment requests the identification of the worst-case spill scenario for each of the four project sites, and a cumulative scenario that incorporates failures on multiple sites. As discussed in Draft EIR Section 3.7.3, Regulatory Framework, there are numerous regulations overseen by DOGGR, the State Fire Marshall, and other regulatory agencies regarding spill prevention, control, and cleanup. With the required compliance with these regulations, the potential for and severity of spills would be less than significant, as discussed in Impact HAZ-1. Further discussion is provided below for each site, and as a cumulative scenario.

Synergy Oil Field Site

The project includes the phased removal of all wells on the Synergy Oil Field site, and the immediate removal of the two tank farms and 95 percent of all existing pipelines. The Project also includes wetlands restoration, the relocation and repurposing of the existing Bixby Ranch Office building for use as a visitors center, and the creation of public access. The worst-case spill scenario on the Synergy Oil Field site would be a rupture of an existing oil gathering line. A full rupture of this pipeline could result in up to 150 gallons spilled. The project includes the construction of a sheet pile wall and berm system, which would separate the Steamshovel Slough from the ongoing oil operations, further reducing the potential for impacts to the proposed wetlands restoration area.

It should be noted that the potential for a spill exists today because oil operations on the Synergy Oil Field site represents the current existing conditions. Therefore, unlike the potential for a spill on the City Property, Pumpkin Patch, or LCWA site, a potential spill on the Synergy Oil Field site would not be a consequence of the proposed project. In fact, because the project proposes to immediately remove the two tank farms and 95 percent of all existing pipelines, the amount of a potential spill would be reduced as a result of the project. Nevertheless, because this is the existing condition, the potential for a spill is not considered an impact of the proposed project.

In addition to these considerations regarding the potential for a spill under existing conditions, these conditions would also exist if the City were to choose the No Project Alternative. In fact, the No Project Alternative would have greater impacts than the proposed project because it would not result in the removal of the two tank farms and 95 percent of existing pipelines. All of those oil field facilities would continue to remain on site under the No Project Alternative and present potential risks of a spill or other hazards. It should also be noted

that an objective of the project is to improve the efficiency of oil production operations through the phase-out of the existing equipment and replacement with more-efficient and modern equipment that will utilize the latest technology and operational advancements related to safety, among other considerations. That project objective would not be realized under the No Project Alternative.

City Property Site

On the City Property site, the project includes the phased removal of all wells on site, and the immediate removal of the tank farm and 95 percent of all existing pipelines, similar to the Synergy Oil Field site discussed above. The project also involves the construction and operation of an approximately 2,200-foot aboveground pipeline system and utility corridor through the City Property site, and includes five aboveground liquid lines: 8-inch-diameter water injection line, 8-inch-diameter gathering line, 4-inch-diameter dry oil line, 3-inch-diameter heat medium, and 3-inch-diameter heat medium return. A worst-case spill event on the City Property site would involve a full rupture of the aforementioned liquid lines.

In the unlikely event all the aboveground liquid lines are impacted with a full line rupture, a conservative estimate can assume the entire line volume spills, plus 5 minutes of the peak pump rates (refer to Response 4b-12). The total line fill volume for the aboveground lines is approximately 16,600 gallons. This would result in a total spill of 30,816 gallons. These calculations assume 65 percent of the peak volume is being transported between the two sites for all pipelines except the dry oil line, which is assumed to be shipping at 100 percent of the daily production rate. As discussed in greater detail in Response 4b-12, the pipeline would also have an emergency shutdown system, which would be activated in the event of a spill to shut down and reduce the amount of oil spilled. The capacity of the containment berm is 140,000 gallons. As the total spill volume (30,816 gallons) is just under 25 percent of the available 140,000-gallon containment trench, it is not expected that the fluid would breach the top of the berm in the unlikely event of a pipeline rupture. Impacts to the adjacent habitat and waterways are not anticipated as the spill would be contained within the trench. The spilled fluid could be removed by approximately seven vacuum trucks, and disposed of as appropriate. Thus even in the event of a worst-case spill, the total spill could be contained within the containment berm and impacts would be less than significant.

Pumpkin Patch Site

On the Pumpkin Patch site, the project includes the drilling and operation of up to 50 wells, and the construction and operation of an office building, warehouse and oil processing facilities. A worst-case spill scenario would involve the rupture of the storage tanks. The Pumpkin Patch site would have two atmospheric-pressure storage tanks on site: a 3,000-barrel tank and a 2,000-barrel tank. Under normal operations neither tank would be completely full. However, in a worst-case spill scenario, in the unlikely event the tanks were both full and were to simultaneously rupture, the entire volume of 5,000 barrels would spill. As discussed in greater detail in Response 4b-12, the potential for a worst-case spill scenario would be mitigated to less than significant through a series of leak detection and containment systems, which would serve to (1) trigger the emergency shutdown valves to cut off the spill should one occur and (2) contain any spills on site. Both of these systems are discussed in Response 4b-12. As described above, all of the tanks on the Pumpkin Patch site would be located within a secondary containment basin, which has a capacity of 3,150 barrels. In addition, a tertiary containment system would be provided by the well cellars to which any spill would flow if the capacity of the secondary containment system is exceeded. The well capacity on the Pumpkin Patch site is 6,000 barrels. Thus the total capacity of the secondary and tertiary containment systems on the Pumpkin Patch

site is 9,150 barrels, which exceeds the worst-case spill of 5,000 barrels. Fluids within the cellars would be processed, pumped out, or disposed of, as appropriate. Off-site impacts are not anticipated as the volume of fluids spilled in a worst-case scenario would be contained on site in the containment berm area or well cellar. In conclusion, given the storage capacity of the secondary and tertiary containment systems, even if the full capacity of the tank were to spill, it would be contained on site within either the containment basin and well cellar and impacts would be less than significant.

LCWA Site

On the LCWA site, the project includes the drilling and operation of up to 70 wells, and the construction and operation of oil processing facilities and a natural gas turbine system. A worst-case spill scenario would involve rupture of the storage tanks. The LCWA site has four atmospheric-pressure storage tanks: two 14,000-barrel tanks are in Secondary Containment Basin A (SCA), and a 5,000 barrel and 28,000-barrel tank are in Secondary Containment Basin B (SCB). Under normal operations none of the tanks would be completely full. However, in the unlikely event that all tanks are full, if the tanks in SCA fail, 28,000 barrels would spill, and if the tanks in SCB fail, 33,000 barrels would spill. If the tanks in both basins fail, 61,000 barrels would spill. The potential for a worst-case spill scenario would be mitigated through a series of leak detection and containment systems, which would serve to (1) trigger the emergency shutdown valves to cut off the spill should one occur and (2) contain any spills on site. Both of these systems are discussed in Response 4b-12. For the reasons discussed below, it is highly unlikely that all four tanks would simultaneously rupture. However, for purposes of analysis, the analysis below first addresses the potential for two of the tanks to rupture simultaneously, and then the scenario of a simultaneous rupture of all four tanks, which—for the reasons discussed below—is considered highly unlikely.

Under normal operations, the two swing tanks within SCA would not be completely full, as they are spare tanks and would be primarily utilized when performing maintenance on other tanks or vessels. However, in the unlikely event the tanks within SCA were both full and were to also simultaneously rupture, the entire volume of 28,000 barrels would spill out to the secondary containment area. As SCA is designed to contain approximately 14,400 barrels, approximately 13,600 barrels would breach the 7.5-foot-tall containment wall. The site is graded so spilled fluids would be directed to the well cellars. The LCWA site well cellars have a combined capacity of nearly 8,200 barrels. This would result in an additional 5,400 barrels of fluid overtopping the containment wall and not being contained within the well cellars. Based on the site area, the 5,400-barrel volume would spread to a height of less than 3 inches throughout the site. As the site is intended to be surrounded by a wall, it is not anticipated that the fluids would migrate off site. Any spilled fluids would be processed, pumped out, or disposed of, as appropriate. Off-site impacts are not anticipated as the volume of fluids spilled in a worst-case scenario would be contained on site.

Under normal operations the two tanks within SCB would not be completely full. However, in the unlikely event the tanks were both full and were to simultaneously rupture, the entire volume of 33,000 barrels would spill out in to the secondary containment area. As SCB is designed to contain approximately 28,800 barrels, approximately 4,200 barrels would breach the 9.5-foot-tall wall. As above, the site is graded so spilled fluids would be directed to the well cellars. All of the overtopped fluid would be contained within the well cellars, which have a capacity of 8,200 barrels, and there would be no additional fluid spread throughout the site. The spilled fluids would be processed, pumped out, or disposed of, as appropriate. Off-site impacts are not anticipated as the volume of fluids spilled in a worst-case scenario would be contained on site.

In the very unlikely event that all four tanks are full (a particularly infeasible scenario inasmuch as the swing tanks are spares and in use when another tank is undergoing maintenance or being serviced) and should they all simultaneously rupture, the combined spill volume would be 61,000 barrels. As the combined containment area is designed to contain 43,200 barrels, approximately 17,800 barrels would breach the containment wall(s). Approximately 8,200 barrels of fluid would be contained within the LCWA site common well cellars. This would result in an additional 9,600 barrels of fluid overtopping the containment wall(s) and not being contained within the well cellars. Based on the site area, the 9,600 barrels would spread to a height of less than 5 inches throughout the site. As the site would be surrounded by a perimeter wall, it is not anticipated that the fluids would migrate off site. Any spilled fluids would be processed, pumped out, or disposed of, as appropriate. Off-site impacts are not anticipated as the volume of fluids spilled in a worst-case scenario would be contained on site and, therefore, considered less than significant.

Cumulative Worst Case

The cumulative worst-case scenario would involve each of the above-discussed scenarios happening simultaneously. As each of the above scenarios is unlikely to transpire on an individual basis, it is even less likely that all four sites simultaneously fail. However, the cumulative worst case would involve, simultaneously, pipeline ruptures on the Synergy Oil Field and City Property sites, and full tank rupture of all tanks on the Pumpkin Patch and LCWA sites, all in the quantities described above. Because the facilities are designed with secondary, tertiary, and (if necessary) quaternary containment systems, the impacts are considered less than significant because, in the event of a worst-case spill, the spill would not migrate beyond the site itself and would be contained totally on site. Finally, as discussed in Response 4b-13, the Applicant would prepare an Oil Spill Response Plan to specify measures to be taken in emergency scenarios to further mitigate and reduce the potential impacts of a spill.

Response 4b-12

The comment requests the identification of measures in place to prevent a spill.

As previously discussed, Draft EIR Section 3.7.3, Regulatory Framework, summarizes the numerous regulations overseen by DOGGR, the State Fire Marshall, and other regulatory agencies regarding soil prevention, control, and cleanup. With the required compliance with these regulations, the potential for and severity of spills would be less than significant, as discussed in Impact HAZ-1. Further discussion of the measures in place to detect, prevent, and/or contain a spill are summarized below.

Facility Design—Seismic

The Newport-Inglewood Fault Zone traverses the proposed project area. A seismic monitoring device (seismometer) would be installed in the trench at the surface location above the Newport-Inglewood Fault. This seismometer would communicate back to both the Pumpkin Patch and LCWA sites via radio communication. Under a significant seismic event, both the Pumpkin Patch and LCWA sites would begin a staged shutdown of pipelines and equipment to a safe state and in a manner that does not cause pressure surges. At a lower-level event, structures are expected to suffer minor, nonstructural damage and resume operations immediately after the earthquake. As required in Mitigation Measure GEO-1, a design-level geotechnical investigation shall be prepared to develop final site- and development-specific recommendations based upon the potential geologic conditions that were described and evaluated in the geotechnical studies and Draft EIR. Design objectives for the proposed project are to maintain operation following a minor seismic

event and to survive without collapse and provide public safety following a design level event (refer to Response 4b-74).

To limit seismic induced settlements, the foundations for the structures and equipment would likely be deep foundations such as driven or augured piles with concrete pile caps. The foundations and the structural steel would be designed in accordance with the California Building Code (CBC), the County of Los Angeles Building Code and ASCE 7 “Minimum Design Loads for Buildings and Other Structures” to withstand seismically induced ground shaking. These designs are based on a maximum considered earthquake ground motion. This is defined as the motion due to an event with a 1 percent probability of exceedance within a 50-year period (a recurrence interval of approximately 4,975 years) (refer to Response 4b-74). The project structures would be designed using a Seismic Risk Category of III in accordance with CBC Table 1604.5.

Facility Design—Leak Detection

Storage tanks on the Pumpkin Patch and LCWA sites would be equipped with primary leak detection systems (instrumentation to monitor and control tank level), secondary leak detection systems (hydrocarbon detection pipes under the base plate), overfill protection, and instrumentation to monitor temperature, as identified in API 650, Appendix E. Each tank would be designed to allow for monitoring and control from the Control Building.

To help detect both large and small leaks, the pipelines would feature state-of-the art fiber optic leak detection systems. Instead of a single fiber optic cable, the leak detection system would include three fiber optic cables for added detection. In addition, the water injection, gathering, and dry oil lines would have a secondary leak detection system monitoring pipeline flow, pressure and temperature. The leak detection system(s) would generate a signal causing emergency shutdown (ESD) valves on both the Pumpkin Patch and LCWA sites to close within 5 minutes to minimize the total volume spilled, which is a very conservative estimate (it is likely that the ESD valves would result in a shutdown much sooner).

Facility Design—Containment

The primary containment device is the pipe or vessel itself. These are designed for the specific material handled at its operating temperature and pressure. Seismic and wind loading are also considered. Atmospheric tanks shall be built in accordance to API 650, Appendix E, and pressure vessels shall be built in accordance to ASME Section XIII. Facility piping shall be built in accordance to ASME B31.3 and the interconnecting pipelines shall be built in accordance to ASME B31.4 and B31.8. Additionally, all pipelines shall conform to CA AB 864 and 49 CFR195. The pipelines would be coated with Fusion Bonded Epoxy (FBE) and protected from corrosion with a Cathodic Protection (CP) system.

Secondary containment provides an additional barrier to prevent any released material from leaving the project sites. On the Pumpkin Patch site, the storage tanks sit in a common secondary containment walled area, designed to contain the contents of the largest tank plus a 25-year storm event. Accordingly, the Pumpkin Patch site tank containment area is designed to contain approximately 3,150 barrels. On the LCWA site, two tanks sit in one secondary containment area (SCA), and two tanks sit in another secondary containment area (SCB). Each containment area is designed to contain the contents of the largest tank plus a 25-year storm event. Accordingly, SCA is designed to contain approximately 14,400 barrels; SCB is designed to contain approximately 28,800 barrels.

Additional secondary containment (tertiary containment) would be provided by well cellars. Both the Pumpkin Patch and LCWA sites would be graded to direct all liquids toward the common well cellars. This would channel flow in case of a failure in both the primary and other forms of secondary containment. The Pumpkin Patch site well cellars have a combined capacity of over 6,000 barrels, and the LCWA site well cellars have a combined capacity of nearly 8,200 barrels.

Also, the Pumpkin Patch and LCWA sites would each be surrounded by a wall to provide additional containment (quaternary containment), which would prevent the migration of fluids off site.

On the City Property site, the pipelines would be surrounded within an earthen berm on both sides. The berms would be composed of soil compacted to a minimum of 90 percent. The height of the containment berms would be up to approximately 1 foot, and each side would be approximately 3 feet wide. The berm would be designed to contain approximately 140,000 gallons of fluid.

Response 4b-13

The comment requests the identification of measures, protocols and equipment in place to address the worst-case spill, including an active contract with an Oil Spill Response Organization (OSRO).

In addition to the measures in place to detect, prevent, and/or contain a spill (refer to Response 4b-11 and 4b-12), the Applicant would be required by DOGGR to prepare an Oil Spill Response Plan to specify measures to be taken in emergency scenarios. These documents would identify the responsible parties for the incident command and the supporting organizations/agencies. The plan would include:

- Emergency Response Action Plan, which serves as both a planning and action document, should be maintained as an easily accessible, stand-alone section of the overall plan;
- Facility information, including its name, type, location, owner, operator information;
- Emergency notification, equipment, personnel, and evacuation information;
- Identification and analysis of potential spill hazards and previous spills;
- Discussion of small, medium, and worst-case discharge scenarios and response actions;
- Description of discharge detection procedures and equipment;
- Detailed implementation plan for response, containment, and disposal;
- Description and records of self-inspections, drills and exercises, and response training;
- Diagrams of facility site plan, drainage, and evacuation plan; and
- Security (e.g., fences, lighting, alarms, guards, emergency cut-off valves and locks, etc.).

An emergency shutdown system would also be provided to protect the facilities in case of problems during operations or other natural or man-made disasters or abnormal events. Clearly marked and strategically located emergency shutdown stations would allow operators to terminate operations. Automatic shutdown would also be initiated due to a fire alarm, a high-level alarm in a tank, detection of a system leak, or other critical alarms detected in the central alarm panel. After shutdown has been completed, the system would be reset once the alarm condition has been cleared.

Response 4b-14

The comment requests a thorough discussion of impacts associated with the worst-case oil spill scenario.

The impacts with respect to each parcel and cumulatively were discussed in Responses 4b-11 and 4b-12.

Response 4b-15

The comment requests that the Draft EIR identify the number of existing wells on the Synergy Oil Field and City Property sites, number of wells to be drilled at the Pumpkin Patch and LCWA sites, and current and anticipated production (barrels).

Draft EIR Chapter 2, *Project Description*, contains information on the number of active, idle and abandoned wells on the Synergy Oil Field, City Property, Pumpkin Patch, and LCWA sites. As identified in Draft EIR Table 2-1, Oil Wells by Site, there are 22 active wells, 17 idle wells, and 13 plugged and abandoned wells on the Synergy Oil Field site; 1 active well and 1 plugged and abandoned well on the Pumpkin Patch site; 1 plugged well on the LCWA site; and 11 active wells, 2 idle wells, and 9 plugged and abandoned wells on the City Property site. The current production from all active wells is approximately 300 barrels per day. The anticipated production from the proposed project is estimated to be approximately 24,000 barrels per day. The production from existing wells would be curtailed to 75 percent of the existing potential production (2,500 barrels per day).

Response 4b-16

The comment requests additional information about site access and construction staging areas. This is provided below.

As identified in the Draft EIR Chapter 2, *Project Description*, the Synergy Oil Field site would be accessed from an existing driveway off of 2nd Street (at the T-intersection of 2nd Street and Shopkeeper Road). The City Property site would be accessed off an existing driveway off Shopkeeper Road. The Pumpkin Patch site would be accessed from one existing and one new driveway off Studebaker Road (at PCH). Primary access to the LCWA site would be from a relocated driveway off Studebaker Road, with secondary access from a new driveway constructed off 2nd Street/Westminster Boulevard.

Construction and staging activities would generally use existing site entry and exit points. Construction equipment and materials would be staged on the site where it is to be used to the extent practical. Small plots immediately adjacent to the construction sites may be used on a temporary basis during peak construction periods. The equipment storage area north and west of the relocated visitors center on the Synergy Oil Field site, the southeast corner of the LCWA site and the southern corner of the Pumpkin Patch site would be used as equipment and pipe staging areas. Equipment required for each production site would be delivered such that it can be installed directly on completed foundations, minimizing on-site staging requirements.

Response 4b-17

The comment requests details regarding asbestos remediation activities, should they be necessary.

The potential for pipelines, pipe coating, and/or insulation to contain asbestos was identified on Draft EIR p. 2-26, and the procedures to remediate asbestos containing materials (ACM) is also described on Draft EIR p. 2-26. Asbestos is typically identified within the bolted seams of the aboveground storage tanks and described as “coupons” as well as gaskets within a bolted valve connection on a pipeline. The ACM is typically removed with the shears mounted on an excavator during the demolition process and the coupons and gaskets disposed of at an off-site disposal facility permitted to accept the material.

In addition to the pipelines, pipe coatings, and/or insulation, ACMs may also be present in the existing Bixby Office Building on the Synergy Oil Field site. The procedures for remediating ACMs were described on Draft EIR p. 3.7-26.

Response 4b-18

The comment requests specific locations and procedures for remediation activities.

Refer to Response 4b-6, which describes the remediation activities recommended for each site. Based upon the Phase 2 Environmental Assessment sampling and testing program, five specific locations (shown on Final EIR Figure 3.7-2b) have been identified where remediation measures may be required. Three of these sites (HA-3, HA-5, and HA-12) are on the Synergy Oil Field site. HA-17 is on the City Property site, adjacent to the tank facility. These four sites all have been identified to have higher concentrations of hydrocarbons. The fifth site, HA-9 (located on the Synergy Oil Field site), has high concentrations of zinc and lead, and remediation in the form of excavation is required to remove the contaminated soils for off-site disposal.

Response 4b-19

The comment requests information on the total amount of grading proposed and asks whether a grading plan has been submitted.

The total estimated earthwork volume for the project is 103,000 cubic yards, which includes 25,309 cubic yards of imported earth. A grading plan has not yet been submitted for the project.

Response 4b-20

The comment requests information on the total length and dimensions of the sheet pile wall.

The sheet pile wall extends along approximately half the distance of the southern perimeter of the mitigation bank, separating the bank area from the oil facilities that will be in place for up to 40 years. The sheet pile wall is shown as a 4,744 linear-foot wall that would be placed primarily along the northern side of existing earthen access roads, allowing the roads to be still be functional. The height of the wall would extend above the surface for approximately 7 to 9 feet and be approximately 12 inches or less in thickness. At this time, the Applicant is further evaluating sheet pile material and installation options, knowing that the duration may only be needed for up to 40 years. Options on the market include vinyl, composite material, aluminum, wood, steel, etc. Whichever option is chosen would be vetted during the resource agency permitting process for ease of installation, minimization of indirect impacts, cost-effectiveness, and durability. The project minimization measures stipulate construction of this sheet pile as occurring during the non-breeding season to avoid impacts to nesting birds.

Response 4b-21

The comment requests additional information on how the proposed oil facilities would connect to existing pipelines, and questions whether these connections are part of the proposed project or if they would be constructed separately.

Connections to off-site third party pipelines are part of the project. A natural gas source is required to power the turbines and the oil pipeline connections to Crimson and Plains are required to deliver oil to local refineries.

Produced oil from the facilities would be transported to off-site refineries using one or both of two existing oil shipping lines. Although the project would access these lines, no additional infrastructure or operations are required to deliver the produced oil off site. The first line, the Crimson Pipeline, is a 6-inch-diameter line that travels northwest/southwest along the south side of PCH and would connect to the Pumpkin Patch site. The 6-inch-diameter Crimson line would be looped into the Pumpkin Patch site from its existing location along PCH. One option would install the proposed connection where the Crimson line is closest to Pumpkin Patch and along the north side of PCH. This connection would not require a crossing of PCH and would be within existing right-of-way. Another option would install a connection where the Crimson line is on the south side of PCH. This option would require a cased conventional bore with two 6-inch-diameter pipelines for purposes of looping the pipeline to be placed within existing right-of-way. Metering and isolation valves would be installed inside the Pumpkin Patch site for both options.

A second line, the Plains All American Pipeline, is located just north of the LCWA site and would be connected by a new 8-inch-diameter line along Studebaker Road. Natural gas needed to power the four turbines and excess gas produced from the site would be transported via the active gas pipeline owned and operated by Southern California Gas Company or Long Beach Gas & Oil located at the intersection of 7th Street and Studebaker Road. As the connection points to all of these pipelines are off site, the project would also construct oil and gas pipelines that run from the Pumpkin Patch and LCWA sites to the connection point for each of these existing pipelines. Given the location of these existing pipelines, it is anticipated that the pipeline connections would be constructed in existing rights-of-way or streets.

Response 4b-22

The comment requests production estimates for the Pumpkin Patch and LCWA sites.

This information is provided in Response 4b-15.

Response 4b-23

The comment requests that the Draft EIR describe the circumstances under which demolition of the storage tank foundation would and would not be required, and confirm that all tank foundations would be removed from the site.

The project proposes the removal of all oil facilities from the Synergy Oil Field and City Property sites. This would include removal of the storage tank foundations as well. There are no circumstances under which the foundations would remain in light of the project objectives. As with other construction debris, the storage tank foundations would be transported for off-site disposal.

Response 4b-24

The comment notes that the project would require approvals from the IRT and the USACE, and that a clarification should be made that restoration work would require approvals by state and federal agencies independent of the IRT.

Prior to any work that may impact any State or federal jurisdictional water or wetland, the project would require that State and federal resource agency permits be obtained from (at minimum) USACE, CDFW, RWQCB, and CCC. Other agencies may include the NMFS, and/or USFWS. Many of these agencies were listed in Draft EIR Section 2.7, *Intended Use of the EIR and Project Approvals*.

Response 4b-25

The comment requests additional information about the aboveground pipeline containment berm and pipeline installation.

The project includes the construction and operation of an approximately 2,200-foot aboveground pipeline system and utility corridor through the City Property site, and includes five aboveground liquid lines: 8-inch-diameter water injection line, 8-inch-diameter gathering line, 4-inch-diameter dry oil line, 3-inch-diameter heat medium, and 3-inch-diameter heat medium return. All pipelines would be installed simultaneously in at least 40-foot sections, in pipe lengths known as double random lengths. The pipelines would be laid on the ground and would not incorporate pipe supports.

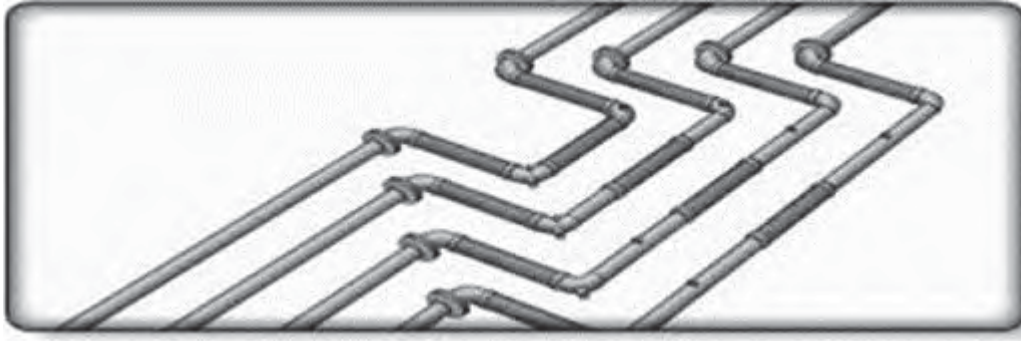
The pipeline system would be surrounded by an earthen berm. The berm would provide a physical barrier to protect the pipelines from maintenance vehicles and equipment using the access road, and would provide containment for pipelines in the event of a spill. The berm would be approximately 12 feet high and 3 feet wide on each side of the pipeline, and would be able to contain approximately 140,000 gallons of fluid. Soil within the containment system would be compacted and potentially mixed with clay or other materials to make this area impervious as required by the DOGGR regulations to implement AB 1960 (Chapter 562, Statutes of 2008). The regulations governing production facility secondary containment are set forth at 14 California Code of Regulations (CCR) Section 1773.1 1 (also refer to Response 4b-12).

Response 4b-26

The comment requests additional details on the expansion loops, including a figure showing the location of the expansion loops for the above-ground pipeline. The comment also requests a detailed plan view of the pipeline corridor and additional details on the expansion loops and how they work.

Expansion loops are required for pipelines operating at elevated temperatures. At elevated temperatures, steel pipelines expand which can generate stress on the pipe. Expansion loops allow the pipeline to flex as it lengthens and shortens due to heating and cooling. Expansion loops also accommodate potential fault displacement by absorbing the force from the fault, as explained in Honegger 2016 (Draft EIR Appendix E8).

An expansion loop is installed to add flexibility to the pipeline reducing the overall stress experienced by the pipe. Typically, expansion loops are required in long runs of straight pipe. The loops typically consist of four consecutive 90 degree turns, forming a U-shaped bend in the pipeline to allow the pipe to expand freely reducing overall stress on pipe. (A depiction of a horizontal stress loop is presented below.) As identified in Draft EIR Chapter 2, *Project Description*, the expansion loops are constructed of the same material as the pipeline. Expansion loops can be laid either horizontally or vertically, and would be approximately 10 feet in height and 10 feet wide. For the pipeline configuration through the City property, an expansion loop is required approximately every 400 feet of straight pipe. For the proposed route, the longest uninterrupted section of straight pipe is approximately 1,200 feet, therefore, two expansion loops are required. Locations of the expansion loops have been highlighted on the attached exhibits.



Refer to Draft EIR Figure 2-20, Aboveground Pipeline Corridor and Utility Corridor, p. 2-45, which depicts the location of the expansion loops and depicts a “plan view” of the above-ground pipeline and pipeline corridor across the City site. Figure 2-20 has been revised to clearly identify the expansion loops and is located in Chapter 10, *Draft EIR Revisions*, of this Final EIR.

Response 4b-27

The comment requests a visual simulation showing the drilling rigs. The comment also expresses the opinion that the rigs be considered a permanent impact because the rigs would be on the Pumpkin Patch and LCWA sites for 11 to 14 years while the wells are being drilled. Each rig would not be on the same location for the entire 11 to 14 years but would be relocated to new well locations as each well is completed. The actual time on each individual well location would depend on subsurface conditions.

It is the conclusion of the City that, because the drilling rigs are not fixed structures, will not be in the same location during the 11- to 14-year drilling period, and are used for a limited period of time, for purposes of analyzing aesthetic impacts, the drilling rigs should be considered a short-term impact. Because they will continue to be moved around the site during this time, by definition this equipment is considered temporary. With respect to workover rigs, the rigs that would be used on site are collapsible and would also be used for limited periods of time. When not in use, the workover rig would be either stored on site in a “collapsed” state or could be moved and stored off site. Again, as with the drilling rigs, by definition, the workover rigs are temporary in nature and not considered fixed or permanent for purposes of visual impacts. For these reasons, the City has determined that the drilling equipment should not be considered permanent, fixed structures for purposes of aesthetic impact analysis. As the presence of these rigs is considered short-term by the City, no additional visual simulations are provided. The Draft EIR includes a number of visual simulations that depict the long-term visual conditions of the four properties that comprise the project site.

Response 4b-28

The comment re-asserts its opinion that the drilling rig should be considered a permanent fixture on the Pumpkin Patch and LCWA sites because of the number of years that it is anticipated either the drilling rig or collapsible workover rig may be present on site.

Refer to Response 4b-27.

Response 4b-29

The comment asks whether it is feasible to spread construction over a longer time frame to reduce emissions.

One of the objectives of the project is to 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. A related objective is to reduce the footprint of oil production operations on both the Synergy Oil Field and City Property sites to less than 10 acres of property. The sooner the two new oil production areas on the Pumpkin Patch and LCWA sites are fully constructed, able to begin oil production operations, and able to produce a revenue stream, the less desirable it would be to maintain production from the older, less-efficient wells on the Synergy Oil Field and City Property sites. The sooner the older wells are shut down, the faster cleanup and remediation activities can be initiated and site revegetation can be implemented. Additionally, once construction commences on the sites to install the new tanks, pipelines, and well cellars, there is a certain order and process by which construction is undertaken, and to intentionally slow the construction would result in additional costs and impacts over a longer period of time. Finally, commencing construction of the office building, warehouse, and production facilities on the Pumpkin Patch site would be necessary in order to move the operations off of the Synergy Oil Field site. Once the office building is constructed on the Pumpkin Patch site, the project could begin moving the existing Bixby Ranch building to a site that is outside of the Newport-Inglewood Fault Zone and raising the elevation of the foundation for the Bixby Ranch building, which would provide greater long-term safety for the structures. Once relocated, the Bixby Ranch building could also be converted for use by the public and LCWA as a visitors center. Thus, it is not feasible to spread out construction, or intentionally slow down the order in which these facilities are constructed.

Although it is not feasible to spread out construction, it should also be noted that a very conservative approach was used to calculate maximum construction emissions such that the emissions reflected in the Draft EIR substantially overestimated the anticipated amount of emissions that would be experienced and that would exceed the combined contribution of construction and operation emissions during periods of overlap. Specifically, the air quality analysis calculated construction emission impacts on the assumption that all phases of construction would occur at the same time. At the time of preparation of the analysis, the phasing of construction was not known and is still uncertain, so an extreme worst-case assumption that all phases of construction would occur simultaneously was assumed. It is not possible to conduct each phase separately; thus, the construction emissions would most likely be less than what was analyzed in the Draft EIR, which assumed that all phases of construction work would be undertaken concurrently. Refer to Response 7-10.

Response 4b-30

The comment notes that the calculation of air emissions for operation of the project utilizes a baseline that assumes that the existing condition includes the operation of all 53 oil wells, and provides a credit to the project for eliminating emissions from the existing oil field. The comment states that emissions from the existing oil field should be accounted for in the calculation of localized emissions. The comment questions whether a credit for eliminating emissions should be applied if the existing emissions are not included in the project emissions.

As described in Draft EIR Chapter 2, *Project Description*, on p. 2-6, there are currently 53 wells on site, of which 34 are currently active and 19 are identified as “idle.” However, without any additional permits or discretionary approvals, the field could operate all 53 wells. Because oil production is cyclical, the environmental baseline assumes emissions for the field operating at its existing potential level, i.e., all 53 wells in operation. Refer to *North County Advocates v. City of Carlsbad* (2015) 241 Cal.App.4th 94. In that decision, the court cited the Supreme Court’s decision in *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310, which involved a ConocoPhillips application to modify a

petroleum refinery. The Supreme Court noted that while existing conditions are normally considered the appropriate baseline, neither CEQA nor the CEQA Guidelines mandate a uniform, inflexible rule, and that a lead agency may exercise discretion to accommodate a “temporary lull or spike in operations” so long as that discretion is supported by substantial evidence. The Supreme Court even noted that ConocoPhillips had indicated that its refinery operations “vary greatly with the season, crude oil supplies, market conditions, and other factors” (id. at 328). In the *North County* case, the court held that the City of Carlsbad’s use of a traffic baseline that assumed full occupancy of a department store that had been vacant for almost 10 years was appropriate and not merely hypothetical because the owner could reoccupy the building at any time without any discretionary action, and that there was evidence that the building had been fully occupied until 10 years prior (*North County Advocates*, 241 Cal.App.4th at 105–106).

CEQA requires that an EIR analyze the impacts of a proposed project on the existing environment. To decide whether a project’s impacts are potentially significant, the lead agency must use some measure of the environment’s state absent the project—which is often referred to as the “baseline” for environmental analysis (id. at 101). Draft EIR Section 3.2, *Air Quality*, analyzed the air emissions from construction and operation of the proposed project against the environmental baseline of the emissions from the 53 existing wells. Although the project proponent could continue to operate all 53 wells at full capacity during the first 20 years, and then 50 percent of those wells from Years 20 to 40, the project proponent has offered—as a project design feature—the reduction of the baseline emissions by 75 percent once building permits are obtained for the office building on the Pumpkin Patch site (refer to Draft EIR p. 3.2-20). Because the reduction is not a part of the baseline, but is a component of the project, this reduction (referred to by the comment as a “credit”) is taken into consideration in evaluating project impacts. Because the remaining 25 percent of the emissions from the 53 wells are part of the environmental baseline, they are not included in the project’s emissions.

The Draft EIR’s air quality analysis accounts for all emission sources resulting from the proposed project. The total change in emissions for the air basin determines what the regional air quality impacts will be, and the approach used in the Draft EIR was developed in consultation with and consistent with SCAQMD guidance and CEQA guidelines, as well as CEQA case law. The localized impacts were analyzed for the Pumpkin Patch and LCWA sites, since these sites would have substantial on-site emissions once the project is in full operation. The existing emissions are not a function of project emissions that should be added to this analysis.

Response 4b-31

The comment states that the emissions credit applied to the project’s operational emissions is described as 75 percent of the total possible emissions for the first 20 years, 87.5 percent for Years 20 to 40 and 100 percent after Year 40, but questions whether the estimate in the Draft EIR results in a credit of 83.5 percent instead of the 75 percent described.

The “discrepancy” noted by the comment is a result of the impact of truck emissions on the proposed project. Trucks are needed to haul the oil to the refineries under the existing scenario. Truck hauling would stop as soon as the project is put into operation because the oil could be shipped to the refineries through the proposed connection to the Crimson or Plains All American Pipeline (refer to Response 4b-21). This accounts for the apparent discrepancy noted in the comment.

Response 4b-32

The comment states that the approach used in the Draft EIR to account for baseline emissions from existing operations provides a worst-case emissions scenario for existing operations, however, in the opinion of the comment it is a “best case” credit that is used to reduce emissions from the proposed project. The comment asks whether the baseline used in the Draft EIR is physically or economically feasible, and requests consideration of a baseline using actual emissions from recent activity.

Refer to Response 4b-30. The Draft EIR utilizes an environmental baseline assuming all 53 wells are in production. This is both physically and economically feasible. There are 34 wells currently in operation, and it is physically and legally feasible to place the remaining 19 idle wells into active status. Whether it is economically feasible depends upon a variety of factors. For example, if the price of oil were to increase, and the project were not approved, it would be economically feasible to utilize all existing 53 wells to continue oil production operations from this oil field. As noted in Response 4b-30, oil production operations, such as refineries and oil production areas such as the project, can vary greatly depending upon the season, supplies, market conditions and other factors. It is because of this variation, which is not predictable, that it would not provide realistic analysis of the baseline if a snapshot in time when fewer wells were in operation, were used. As the comment notes, assuming full operations provides a worst-case scenario for existing conditions. If a lesser number of wells were assumed in operation, the existing emissions may be underestimated. In addition, the environmental analysis identified the operational emissions assuming all proposed 120 wells were in operation.

Response 4b-33

The comment asks why the air quality impact analysis considers the four sites independently instead of considering the combined emissions from all four sites. The comment observes that depending upon conditions, factors such as the wind could potentially result in emissions from the four sites comingling.

The two sites with any real potential for localized air impacts are the Pumpkin Patch and LCWA sites. These two sites are separated by more than 2,000 feet, and the pollutants from one site would disperse before reaching the second site. Additionally, it would be almost impossible for the wind to blow emissions from one site to the other site and then to a sensitive receptor since the four locations do not line up and the prevailing wind is on-shore. Therefore, the localized air quality impacts have been assessed in a reasonable manner and in a manner consistent with the SCAQMD Guidelines.

Response 4b-34

The comment notes that the analysis of air quality emissions considers construction and operation emissions separately, but given the phased construction, the comment observes that some construction activities could occur simultaneously with some operation activities and that air emissions could be underestimated.

Refer to Response 7-10.

Response 4b-35

The comment asks where in Draft EIR Figure 3.3-1, Vegetation Communities, p. 3.3-5, is the cattail marsh designated. The comment requests that the location of the cattail marsh and any other freshwater wetland species or communities be identified.

There is a single occurrence of “cattail marsh” on the Synergy Oil Field site, located at the extreme southern tip of the Synergy Oil Field site immediately east of the intersection of East 2nd Street and East Pacific Coast Highway. The area receives local runoff from surrounding areas of the site as well as from West 2nd Street. The cattail marsh provides habitat for common avifauna typical of marsh habitats such as common yellowthroat, red-winged blackbird, and song sparrow and does not support any special-status species. No other freshwater aquatic habitats occur within the four sites that comprise the project. As shown in Biological Technical Report Table 5-3, Summary of Direct Vegetation Impacts: Synergy Oil Field – Phase 2 – Temporary Sidewalk, and Exhibit 4A, Synergy Oil Field – Vegetation Impact Map, 0.03 acre of the cattail marsh on the Synergy Oil Field site would be temporarily impacted during grading of the perimeter sidewalk along 2nd Street. Once grading is complete, the 0.03-acre area would be restored to pre-existing contours and revegetated with the same species.

Response 4b-36

The comment asks whether surveys for southern tarplant were conducted on the City Property site. The comment notes that data from 2011 and 2013 was used to map this plant species on the City Property site but suggests that recent surveys will be critical to determine the presence and extent of ESHA on the City Property site.

Updated surveys were conducted by the Applicant’s biological consultant, GLA, on the City Property site for southern tarplant in September 2017. Draft EIR Figure 3.3-2b, City Property Site—Special-Status Plants Map, p. 3.3-22, has been updated and appended in Chapter 10, *Draft EIR Revisions*, of this Final EIR. This figure depicts the extent of southern tarplant in 2017 as well as the pipeline alignments for the proposed project, Alternative 5, and the Perimeter Alignment described in the CCC comment letter (refer to Response 4b-5). A total of 6,901 individuals were detected. Potential mitigation ratios are provided in the Draft EIR and potential mitigation areas include the lower portion of the Pumpkin Patch site as well as areas identified on the Synergy Oil Field site.

Response 4b-37

The comment asks if a map of all four sites identifying just the sensitive natural communities and areas of potential ESHA can be provided.

GLA’s ESHA Memo dated May 3, 2017, and Revised June 22, 2017, included in Draft EIR Appendix C3, includes a discussion with maps for the Synergy Oil Field, City Property, and Pumpkin Patch sites of sensitive natural communities. As described therein, some populations on the Synergy Oil Field and City Property sites rise to the level of ESHA because of their size or number of patches, the health of the plants, and the proximity to each other. Based upon the description of the location of the tarplant as described in Appendix C3 the location of areas of potential ESHA on the City Property site is depicted on Figure 3.3-2b in Chapter 10, *Draft EIR Revisions*, of this Final EIR.

Response 4b-38

The comment references a statement in the Draft EIR that the GIS data does not distinguish between three criteria wetlands as defined by USACE or pursuant to the Coastal Act. The comment asks when the data was used to build the GIS layers collected.

The statement from the Draft EIR Section 3.3, *Biological Resources*, p. 3.3-42, that “GIS data that does not distinguish between three criteria wetlands as defined by the USACE or wetlands defined by the CCA” means that all areas mapped as potential one-parameter wetlands by the California Coastal Act were automatically given the designation of USACE three-parameter wetlands. This is due to the lack of data pit information to inform how many parameters were met. Therefore, the significance of this mapping is that wetlands meeting the three-parameter definition of wetlands utilized by the USACE may be potentially over-mapped as some of these areas may only support one or two parameters. Potential Coastal Act wetlands have been identified to the fullest possible and a new delineation is not required.

The jurisdictional delineation was prepared by AECOM and is dated as both 2011 and 2012. The extent of wetlands on the City Property site was also included in the September 2015 (Revised January 2016) *Biological Resources Assessment and Wetland Delineation: Southeast Area Development and Improvement Plan* prepared for the City of Long Beach by Placeworks and VCS Environmental. A jurisdictional delineation for waters of the U.S. is generally valid for 5 years, and a new delineation may be required for pipeline construction if permits are not obtained by 2021.

Response 4b-39

The comment asks whether the quote in Comment 4b-38 means that the data used to determine wetlands as defined by the Coastal Act does not account for one or two parameter wetlands. Should this be the case, the comment expresses concern that the information would not provide CCC staff with adequate information to determine the extent of wetlands on the City Property site and requests a new wetland delineation for the City Property site.

The Coastal Act definition of wetlands was used to identify wetlands. Therefore, sufficient information in the wetlands delineation has been provided for use by CCC staff and no additional delineation work is required. Refer to Response 4b-38.

Response 4b-40

The comment request that a new map showing the jurisdictional areas within the City’s right-of-way described in Table 3.3-13, Jurisdictional Areas within the City’s Right-of-Way Adjacent to the City Property Site, be provided.

The jurisdictional areas within the City Property site’s right-of-way area is depicted on Biological Technical Report Exhibit 5F, City Property Site – Jurisdictional Delineation Impact Map, Draft EIR Appendix C1.

Response 4b-41

The comment states that it disagrees with the statement in the Draft EIR that the seasonal depressions on the Pumpkin Patch site are not considered wetlands under the Coastal Act and references the technical memo that was attached to this comment letter from Jonna Engel, CCC senior biologist.

The July 25, 2017, Memorandum from Jonna Engel, Ph.D., asserts jurisdictional wetland status over the “non-jurisdictional depression” mapped in the Biological Technical Report Exhibit 5D, Pumpkin Patch Site – Corps 404 Jurisdictional Delineation Impact Map (Draft EIR Appendix C1), because it meets the criteria for wetland hydrology and, therefore, meets CCC’s one-parameter criterion for an area being a wetland. This “non-jurisdictional depression” would account for 0.25 acre, and when overlain on the current site aerial, would occur over parking and operational facilities of the Pumpkin Patch site.

During the site visit with Ms. Engel on May 5, 2017, which occurred immediately after the abnormally wet season, areas supporting hydrophytic vegetation and hydrology indicators, such as saturation, salt crust, and/or surface soil cracks, were visible within the seasonal depressions. Hydrophytic vegetation consisted mainly of salt-marsh sand spurrey and southern tarplant. Given that the southern tarplant and salt-marsh sand spurrey are unreliable indicators for wetlands based on multiple years of data collection at the site, the lack of hydric soil indicators, and the lack of wetland hydrology in 50 percent of years, the seasonal depressions do not meet the minimum threshold for wetlands under the Coastal Act. Nonetheless, should CCC assert otherwise, the City's Draft EIR would identify the acreage of potential wetland associated with the seasonal depressions as 0.03 acre based upon substantial evidence in the record before the City. Biological Technical Report Exhibit 5D depicts the seasonal depressions within the area that actually support wetland hydrology.

Based upon the evidence in the City's record, the City believes that the 0.25-acre extent of the depression shown on the May 24, 2005, EIP memo does not represent the site conditions observed on the May 5, 2017, site visit nor the area of ponding where non-listed fairy shrimp were detected. This 0.25-acre extent was mapped following one of the wettest years experienced in recent history and should not be used to map the extent of coastal wetlands for this project. For the reasons discussed above, and the evidence before it in the record, the acreage of potential wetland associated with the seasonal depressions should total 0.03 acre, as depicted in Biological Technical Report Exhibit 5D.

Response 4b-42

The comment states that impacts to southern tarplant would be considered significant but are reduced to a less-than-significant level in the Draft EIR. The comment requests that the southern tarplant be avoided and those that would be directly impacted should be identified. The comment requests that the Draft EIR be revised to quantify the real extent of impacts to southern tarplant and to identify areas of southern tarplant that would be permanently impacted on all four sites on a map.

In Draft EIR Section 3.3, *Biological Resources*, Figure 3.3-2a, Synergy Oil Field Site—Special-Status Plants Map, p. 3.3-21; Figure 3.3-2b, City Property Site—Special-Status Plants Map, p. 3.3-22; and Figure 3.3-2c, Pumpkin Patch Site—Special-Status Plants Map, p. 3.3-23, depict the locations where southern tarplant would be subject to impacts on the Synergy Oil Field, City Property, and Pumpkin Patch sites, respectively. The only site in which results have changed from those shown in the Draft EIR is on the City Property site where updated surveys were conducted in September 2017. Refer to revised Figure 3.3-2b, City Property Site—Special-Status Plan Map, which has been updated to include the September 2017 tarplant locations and is included in Chapter 10, *Draft EIR Revisions*.

The following excerpts are from the Biological Technical Report as it relates to impacts to southern tarplant. Information on the City Property site has changed given the updated 2017 numbers and potential new alignment.

Synergy Oil Field Site—Phase 1 Mitigation Bank Area

Grading for the Phase 1 Mitigation Bank Area would impact one population of southern tarplant east of Steamshovel Slough [Biological Technical Report Exhibit 7A, Synergy Oil Field – Special Status Plants Map]. Grading would impact an estimated 6,000 individuals as counted during 2016, which accounts for approximately 2.2 percent of the population on the Synergy Oil Field site based on 2016 estimates, which as noted resulted in significant numbers of tarplant. The loss of 6,000 individuals of southern tarplant would be

considered significant before mitigation; however, with mitigation, the impacts to southern tarplant would be reduced to less than significant.

Synergy Oil Field Site—Phase 2 Area

Removal of the pipelines and other oil field infrastructure exhibits potential for impacts to southern tarplant since this species occurs on and adjacent to many of the disturbed pads where the activities would take place [Biological Technical Report Exhibit 7A]. While care would be taken to avoid this species during the removal process, in the event that inadvertent and temporary impacts to southern tarplant occur, the Applicant would restore the impacted area by removing any material that was not present prior and reseeding, as necessary, any area where southern tarplant has been affected.

Pumpkin Patch Site

Grading of the site would result in impacts to approximately 155 individuals of southern tarplant [Biological Technical Report Exhibit 7B, Pumpkin Patch Site – Special Status Plants Map]. The loss of 155 individuals of southern tarplant would be considered significant before mitigation; however, with mitigation, the impacts to southern tarplant would be reduced to less than significant.

City Property Site

The City Property site contains populations of southern tarplant throughout the site. Installation of the pipeline corridor and removal of the pipelines and other oil field infrastructure exhibits potential for impacts to southern tarplant since this species occurs on and adjacent to many of the disturbed pads where the activities would take place [Biological Technical Report Exhibit 7C, City Property Site – Special Status Plants Map]. Care would be taken to avoid this species during the installation and removal process; however, in the event that impacts to southern tarplant occur, the Applicant would restore the impacted area by removing any material that was not present prior and reseeding, as necessary, any area where southern tarplant has been significantly affected. Based on the updated 2017 tarplant data, the project would result in the following impacts:

Proposed Pipeline Alignment:	191 Individuals
Alternative 5 Alignment:	55* Individuals
Perimeter Alignment:	736 Individuals
Sidewalks:	305** Individuals
* This impact may be avoided due to the distribution of plants along the outer perimeter of the access road.	
** These individuals were included in the Perimeter Alignment impact.	

Response 4b-43

The comment asks several questions regarding Mitigation Measure BIO-2, including whether CDFW has indicated that they have the resources to perform the consultation described in Mitigation Measure BIO-2; whether the required restoration plan apply to just areas that would be restored with southern tarplant; and whether there is a mitigation ratio that would be applied to permanent impacts on the southern tarplant.

CDFW has not been consulted directly regarding Mitigation Measures BIO-1 and BIO-2. Also, CDFW did not comment on the Draft EIR. A Section 1602, Streambed Alteration Agreement, is expected to be submitted to

CDFW; therefore, CDFW would have an opportunity to condition the project to offset impacts to areas within their jurisdiction.

The southern tarplant restoration plan would be specific to the restoration of southern tarplant and would include suitable areas for re-introduction or establishment. Southern tarplant populations vary by orders of magnitude from year to year and also exhibit substantial variation of densities between sites. Therefore, mitigation for southern tarplant is typically based on number of individuals impacted and not on areal extent and mitigation ratios are commonly 1:1 because of the weedy character of this species.

Response 4b-44

The comment states that southern tarplant mitigation areas should be deducted from credits that would be available from the proposed mitigation bank to avoid double-counting.

Southern tarplant would not be mitigated through mitigation bank credits as the mitigation bank is not being set up to provide mitigation for special-status species. Rather, impacted southern tarplant would be mitigated through translocation to suitable areas within the restored areas on a 1:1 basis based on counts conducted during 2017, which was an optimal year for southern tarplant.

Response 4b-45

The comment questions whether grading and other construction activities proposed adjacent to Steamshovel Slough such as breaching the berm and pile driving of the sheetpile wall, would have impacts that could affect special status species, and requests that these impacts be addressed.

The Wetland Restoration Plan assumes that all grading within areas to be restored, installation of the sheet pile, and other construction related activities would be conducted outside the avian breeding season, eliminating potential noise impacts to avifauna during the breeding season. In addition, all construction work would occur prior to breaching of the berms, which would only be accomplished after all other construction activities are completed and ready to accommodate tidal exchange. Standard BMPs for grading would be implemented to capture any sediments that are generated during construction. Such measures would reduce potential impacts from sedimentation on green sea turtles, marine mammals, and various invertebrates to less than significant. Belding's savannah sparrow resides in the higher portions of the marsh and would not be affected by sedimentation. A discussion of indirect impacts from erosion and sedimentation on green sea turtles has been added to Impact BIO-2 in Chapter 10, *Draft EIR Revisions*, of this Final EIR.

Response 4b-46

The comment asks if CDFW has indicated they have sufficient resources to provide the required consultation under the mitigation measure.

CDFW has not been consulted directly regarding Impact BIO-3. CDFW did not comment on the Draft EIR. A Section 1602, Streambed Alteration Agreement, is expected to be submitted to CDFW; therefore, CDFW would have an opportunity to condition the project to offset impacts to areas within their jurisdiction.

Response 4b-47

The comment expresses the position that if the Applicant requires mitigation for project-related impacts, the mitigation should be subtracted from the mitigation credits awarded in the mitigation bank.

The mitigation bank final calculations are made by the IRT and not determined by this EIR. Permanent impacts resulting from the loss of wetlands associated with installation of the sheet piles can be mitigated through deduction of credits from the mitigation bank or be mitigated through other areas within the project, such as the Pumpkin Patch site. Any mitigation that is provided through the pending Mitigation Bank would be accounted for and, therefore, deducted from the total amount of credits from the bank. USACE requires detailed tracking of available and used credits, which are reported after each sale or use of credits and are also posted online through the USACE website. There would be no possibility for “double dipping” of credits for this project and another subsequent project as credits are monitored and accounted for continually. Should the project mitigate elsewhere for its impacts, such as on the Pumpkin Patch site or otherwise, this would also be described in the respective permits.

Response 4b-48

The comment notes that many sensitive natural communities are also considered wetland areas under the Coastal Act, and mitigation is required. The comment also identifies potential mitigation ratios ranging from 2:1 to 4:1.

The City recognizes that CCC may, through its separate permitting process under the Coastal Act, impose mitigation at a different ratio than the City. The City believes that the mitigation it has identified in the Draft EIR addresses potentially significant impacts to biological resources to less than significant even if they may differ from the mitigation that CCC may consider.

Response 4b-49

The comment states that many of the impacts to sensitive communities identified as temporary may be permanent.

Wetland areas subject to permanent impacts include areas that would be lost to the aquatic environment due to conversion, such as the very limited areas (0.03 acre) affected by sheet pile installation and trail grading. Areas that would be subject to temporary grading to enhance hydrological conditions such as grading to create transitional wetland areas or tidal channels, which are needed to provide or enhance hydrological conditions are considered temporary. In other words, tidal coastal wetlands would remain tidal coastal wetlands following the temporary impact. The small amount of impact to wetlands resulting from the overlook terrace would be restored along the edge of the terrace. The wetland in this location is non-tidal to begin with and will remain non-tidal in the post-restoration condition.

Response 4b-50

The comment addresses the constructed berm and that construction impacts should be considered permanent impacts and mitigated as such.

A review of the Wetland Restoration Plan shows that the constructed berm would be planted with coastal salt marsh plantings and that up to an elevation of 5.1 feet NGVD on the mitigation bank side of the berm (north facing) would be considered tidal wetlands. The areas where the berms would be installed currently support a mosaic of uplands and one-parameter wetlands that support facultative wetland species such as saltgrass, with the 18 percent of the wetland areas consisting of unvegetated flats. These areas currently lack hydric soils and wetland hydrology and, with the proposed restoration, would be incorporated in to areas that exhibits tidal influence. Because such wetland areas would experience enhanced hydrological conditions and would support

a higher diversity of salt marsh species—and importantly, would provide important habitat for the Belding’s savannah sparrow—the net permanent impact (acreage of area converted from tidal wetlands to non-tidal wetlands) should be allowed to be mitigated at a reduced ratio. This ratio would be determined during processing of the Coastal Development Permit.

Response 4b-51

The comment states that impacts to vegetated wetland alliances from sidewalk grading and construction should also be considered permanent and mitigated.

Impacts related to sidewalk grading on the Synergy Oil Field site are broken down in Biological Technical Report Tables 5-2 through 5-6. Impacts are described as permanent where the concrete, including curb and gutter, for the sidewalk would occur, and temporary where only grading for the sidewalk would occur. Following grading, if the area would be returned to pre-project conditions, it would be classified as a temporary impact.

Grading of the Overlook Terrace would impact 0.04 acre of non-tidal pickleweed mat that occurs at an elevation of approximately 10 feet and, therefore, lacks wetland hydrology and hydric soils. Given the limited extent, this vegetation community exhibits no measurable wetland functions. Mitigation for this temporary impact would be provided at a basis of 1:1 through the replanting of pickleweed mats along the western perimeter of the Overlook Terrace closest to Steamshovel Slough.

Response 4b-52

The comment notes that impacts to wetlands from sidewalk construction are generally not considered an allowed use of fill/excavation in wetlands under the Coastal Act.

The comment is noted and the regulatory requirements of Coastal Act Section 30233 concerning the impact to wetlands are acknowledged. The sidewalks are a pedestrian safety condition of the project required by the City, which may or may not be permitted by CCC during its review of the proposed project.

Response 4b-53

The comment states that impacts to the depressional area on Pumpkin Patch site would be considered an impact to wetlands that should be mitigated at 4:1.

The July 25, 2017, Memorandum from Jonna Engel, Ph.D. (attached to CCC’s letter and responded to in Responses 4b-139 through 4b-154) asserts jurisdictional wetland status over the entire depression mapped in the May 24, 2005, EIP memo and identified by a black and white boundary line labeled “non-jurisdictional depression” on Biological Technical Report Exhibit 5D, Pumpkin Patch Site – Corps 404 Jurisdictional Delineation Impact Map, because it meets the criteria for wetland hydrology and, therefore, meets CCC’s one-parameter criterion for an area being a wetland. This “non-jurisdictional depression” would account for 0.25 acre, and when overlain on the current site aerial, would occur over parking and operational facilities of the Pumpkin Patch site.

During the site visit with Ms. Engel on May 5, 2017, which occurred immediately after the abnormally wet season, areas supporting hydrophytic vegetation and hydrology indicators, such as saturation, salt crust, and/or surface soil cracks, were visible within the seasonal depressions. Hydrophytic vegetation consisted mainly of salt-marsh sand spurrey and southern tarplant. Given that the southern tarplant and salt-marsh sand spurrey are

unreliable indicators for wetlands based on multiple years of data collection at the site, the lack of hydric soil indicators, and the lack of wetland hydrology in 50 percent of years, the seasonal depressions do not meet the minimum threshold for wetlands under the Coastal Act. Nonetheless, should CCC assert otherwise, substantial evidence in the record before the City would support a determination that the acreage of potential wetland associated with the seasonal depressions totals 0.03 acre. Biological Technical Report Exhibit 5D depicts the season depressions within the area that actually supports wetland hydrology.

The 0.25-acre extent of the depression shown on the May 24, 2005, EIP memo does not represent the site conditions observed on the May 5, 2017, site visit nor the area of ponding where non-listed fairy shrimp were detected. This 0.25-acre extent was mapped following one of the wettest years experienced in recent history and should not be used to map the extent of coastal wetlands for this project. Based upon the evidence in the record that was used to prepare the Draft EIR, the City believes that the acreage of potential wetland associated with the seasonal depressions should total 0.03 acre, as depicted in Biological Technical Report Exhibit 5D.

If it is determined that the 0.03-acre highly degraded seasonal depression on the Pumpkin Patch site is a wetland, the City's Draft EIR requires mitigation through creation of wetlands consistent with Mitigation Measure BIO-5 (refer to Mitigation Measure BIO-5, which provides mitigation for Impact BIO-3, and Mitigation Measures BIO-10 and BIO-11, which mitigate Impact BIO-4). The City recognizes that CCC may, through its separate permitting process under the Coastal Act, impose mitigation at a different ratio than the City. The City believes that the mitigation it has identified in the Draft EIR addresses potentially significant impacts to biological resources to less than significant even if they may differ from the mitigation that CCC may consider.

Response 4b-54

The comment states that impacts to wetlands resulting from wetland restoration work must be quantified and mitigated.

As noted in Response 4b-9, prior to impact to any jurisdictional water or wetland, resource agency permits would be required from (at minimum) USACE, CDFW, RWQCB, and CCC (also refer to Mitigation Measure BIO-5, which provides mitigation for Impact BIO-3, and Mitigation Measures BIO-10 and BIO-11, which mitigate Impact BIO-4). The respective permits from these agencies would specify the acreage and location of compensatory mitigation required to offset impacts. Any mitigation that is provided through the pending Mitigation Bank would be accounted for and, therefore, deducted from the total amount of credits from the bank. USACE requires detailed tracking of available and used credits, which are reported after each sale or use of credits and are also posted online through the USACE website. There would be no possibility for "double dipping" of credits for this project and another subsequent project as credits are monitored and accounted for continually. Should the project mitigate elsewhere for its impacts, such as on the Pumpkin Patch site or otherwise, this would also be described in the respective permits.

Response 4b-55

The comment states that impacts to wetlands from construction of the trail or public access facilities, should be considered permanent and mitigated.

Refer to Biological Technical Report Section 5.2, Impacts to Vegetation Associations, for a breakdown of permanent and temporary impacts to all upland and wetland vegetation communities. The manner in which impacts are classified as permanent versus temporary is discussed in Responses 4b-49 through 4b-51.

Response 4b-56

The comment requests a map of the wetland areas impacted by the project for the different jurisdictions.

Impacts to wetlands by jurisdiction are provided in Biological Technical Report Exhibits 5A through 5E.

Response 4b-57

The comment requests additional information as to why wetland impacts from sidewalk grading is considered both temporary and permanent impacts. The comment also notes that sidewalk construction is not an allowable use under the Coastal Act.

Impacts related to sidewalk grading on the Synergy Oil Field site are broken down in Biological Technical Report Tables 5-2 through 5-6. Impacts are described as permanent where the concrete, including curb and gutter, for the sidewalk would occur, and temporary where only grading for the sidewalk would occur. Following grading, if the area would be returned to pre-project conditions, it would be classified as a temporary impact.

Response 4b-58

The comment expresses the opinion that Mitigation Measure B-10 should be revised to require compensatory mitigation for all impacts to jurisdictional wetlands.

All impacts to jurisdictional wetlands would be mitigated pursuant to the prescribed mitigation ratio. This mitigation ratio would also be determined during processing of the resource agency permits.

Response 4b-59

The comment notes that impacts to wetlands resulting from removal of pipelines and wells and storage tanks may be classified as either temporary or permanent. The comment asks that the impacts resulting from these activities be described and quantified.

The Draft EIR and Draft EIR Appendix C1, Biological Technical Report and Jurisdictional Delineation, conclude that all impacts associated with pipeline and tank farm removal would be temporary in nature. Excavation activities to remove pipeline racks would not constitute a permanent impact as these areas would be able to be restored and revegetated. No structures or facilities would be placed where the removals would occur.

The temporary impacts are difficult to quantify as the goal of the removal would be to conduct as much work by hand as possible, such as during pipeline removal, to avoid equipment from trampling over the wetland. Tank farm removals would also be conducted section by section, with care to avoid inadvertent impacts. There are also numerous access roads facilitating equipment to the location of the removals. The impacts, temporary in nature, would all be restored at a 1:1 ratio following the removals.

Response 4b-60

The comment requests that the Draft EIR address potential impacts to wetlands from removing pipelines containing asbestos.

As described in Response 4b-17, the manner in which asbestos is removed from pipelines is described in Draft EIR Chapter 2, *Project Description*, on p. 2-26. An asbestos remediation contractor would remove coating or insulation as required by DOGGR and DTSC regulatory requirements before the pipeline itself is removed. The process by which the pipelines are removed is also described on Draft EIR p. 2-26—whether the pipeline formerly contained asbestos or not, the removal methods would be the same. The pipelines and racks would be cut and removed/pulled by hand onto the adjacent earthen road network located throughout the site. Plastic tarps would be laid beneath the pipelines prior to removal to collect any pieces of the pipe that may come apart during the removal process and prevent them from falling into the wetlands. Once on the roads, the pipes may be further cut into smaller segments and loaded onto trucks by small equipment such as a bobcat for disposal off site. No equipment would be driven onto vegetated wetland areas; only access on foot would occur within vegetated wetland areas.

Response 4b-61

The comment requests that the Draft EIR address impacts from the staging and use of heavy equipment within the wetlands.

The only heavy equipment that would work within wetland areas will be standard earth-moving equipment such as bulldozers, front-end loaders, and excavators. Given that the work performed by this equipment is specific to wetland restoration and would be completed within approximately 6 months, there would be no significant impacts to wetland areas. All equipment would access through the site on existing access roads and would be staged at the end of every day on existing parking/developed areas. No staging would be permitted in any wetland area.

Response 4b-62

The comment asks if there is a potential for impacts to wetlands related to the relocation and raising of the Bixby Ranch Office Building.

There would be no impacts to wetland associated with raising and relocation of the Bixby Ranch Field Office Building. Refer to Biological Technical Report Exhibit 5C, Synergy Oil Field – CCC Wetlands Impact Map, for the location of wetlands in proximity to the current and future building location.

Response 4b-63

The comment recommends that the text of the analysis of Draft EIR Impact BIO-5 be revised to address impacts to native wildlife nursery sites located within Steamshovel Slough.

Native wildlife nursery sites include areas of known breeding habitat. Potential impacts to nesting birds, including Belding's savannah sparrow and its habitat, are discussed in Draft EIR Impact BIO-2. A discussion of potential impacts of increased sedimentation to Steamshovel Slough, which may provide breeding or foraging habitat for aquatic wildlife, has been added to Impact BIO-2 in Chapter 10, *Draft EIR Revisions*, of this Final EIR. Also refer to Response 4b-45.

Impact BIO-5 addresses the manner in which the project would provide for re-establishment of permanent and temporary impacts to sensitive natural communities. Potential construction-related impacts resulting from restoration of wetland areas adjacent to Steamshovel Slough would be minimized as described in Responses 4b-90, 4b-91, and 4b-115. No change to Impact BIO-5 is required.

Response 4b-64

The comment requests that the potential impacts of the project on potential ESHA areas on the four sites from construction-related and operation-related noise, dust, sedimentation, runoff and operational activities be addressed.

Potential impacts to ESHA from construction have been addressed in the Draft EIR. Draft EIR p. 3.3-80 includes a section titled: Potential ESHA Pursuant to California Coastal Act. This section identifies potential ESHA within each of the four project sites and how the project may or may not impact potential ESHA. The information contained in this section is supported by the June 22, 2017, Technical Memorandum prepared by Glenn Lukos Associates titled: *Impacts to Areas that Potentially Meet the California Coastal Act Definition for Environmentally Sensitive Habitat Areas (ESHA) Associated with the Los Cerritos Wetlands Oil Consolidation and Restoration Project, Long Beach, California.*

Post-construction indirect impacts to potential ESHA are expected to decrease or remain the same. On the Synergy Oil Field site, the visitors center and trail would be managed by the LCWA. Users would be required to stay on the trail with signage indicating presence of sensitive species in the vicinity. Current operations of the oil field would remain the same. The ultimate removal of oil operations on the Synergy Oil Field site would result in less potential for impacts to ESHA than under current conditions.

Per the July 25, 2017, memorandum from Dr. Jonna Engel, there is no ESHA on the Pumpkin Patch or LCWA site. On the City Property site, operation of the pipeline is not expected to impact ESHA. Measures have been identified to contain spills. Current operations of the oil field would remain the same and would decrease over time thus minimizing any potential impacts to sensitive habitat. The ultimate removal of oil operations on the City Property site would result in less potential for impacts to ESHA than the current condition.

Response 4b-65

The comment requests additional information regarding how the wetlands and buffer policies of SEADIP apply to the proposed project and if the project is consistent.

The comment pertains to Section B of the City's SEADIP. The project's consistency with the applicable provisions of the Wetlands and Buffers policies of SEADIP are addressed in Draft EIR Section 3.9, *Land Use and Planning*. Refer to Draft EIR Table 3.9-1, Consistency Analysis with Local Land Use Plans, p. 3.9-31. It should be noted that the Applicant has submitted proposed amendments to the City's SEADIP, including requested amendments to the Wetlands and Buffers policies that would reflect a pro rata allocation of responsibility for wetlands restoration and takes into consideration use of the property for oil operations instead of the more intense urban development the SEADIP policies contemplate for the project site.

Response 4b-66

The comment states the opinion that the analysis did not address potential impacts to biological resources from noise, dust, excessive sedimentation and runoff from construction and operation of the project.

Refer to Response 4b-45.

Response 4b-67

The comment notes that the proposed project includes the drilling of 120 wells to an unspecified depth where paleontological and cultural resources might be. The commenter asked whether the City considered this impact in the evaluation of cultural resources, and if mitigation measures identified for cultural resources apply to well drilling activities. Additionally, the commenter questions if there are additional mitigation measures that could be proposed.

All activities of the proposed project that could affect subsurface cultural and paleontological resources, including well drilling, were considered in the evaluation of the project's potential environmental impacts. Additionally, tribal consultation was conducted with the impacted tribal officials. Mitigation Measures CUL-5 through CUL-9 identified in Draft EIR Section 3.4, *Cultural Resources*, would apply to well drilling activities. No additional measures have been identified to reduce this potential impact to a less-than-significant level.

Response 4b-68

The comment asks whether the landfill on the Synergy Oil Field site was characterized to determine the nature and extent of chemicals that could impact the proposed wetlands adjacent to the landfill.

As described on Draft EIR p. 3.7-4, the landfill has been described as accepting debris such as concrete and asphalt and the disposal method has been surface application. There is no indication that "hazardous-classified" chemicals have been historically disposed with the debris that would affect the proposed wetlands. In addition, this landfill is buried under 25 feet of fill and would not be disturbed by the surface grading conducted for the restoration activities.

Response 4b-69

The comment requests an analysis of the potential risk of subsidence related to the landfill on the Synergy Oil Field site.

Since the Synergy Oil Field site is intended for wetlands restoration, there is very limited potential that subsidence would occur. Unlike other sites, such as the Pumpkin Patch site, where structures are proposed to be built over the landfill, which could accelerate subsidence or could be adversely impacted by subsidence, no structures are proposed on the Synergy Oil Field site in this area where the landfill is located that would pose a risk of subsidence.

Response 4b-70

The comment states that although no geologic investigation was conducted, the same geologic conditions pertaining to expansive soils that exist on the Pumpkin Patch and LCWA sites where investigations were undertaken is believed to exist at the Synergy Oil Field and City Property sites and requests a justification for this assertion.

Expansive soils are believed to exist on the Synergy Oil Field, City Property, Pumpkin Patch, and LCWA sites. The geologic setting for all four sites is the Los Angeles Basin, a drainage area comprised of low alluvial floodplains. The soils are essentially deposited as sediment from water that has drained from the nearby mountains. The presence of expansive soil ranging from low to moderate in expansion potential was found at

the Pumpkin Patch and LCWA sites. It is geologically reasonable to expect soils with some level of expansion to be present on all four sites.

Response 4b-71

The comment requests analysis of the potential for surface rupture due to the increased activities associated with well abandonment activities.

The duration and intensity of activities during well abandonment operations is less than during well construction; therefore, as impacts from construction and drilling are not likely to create adverse impacts, it is even less likely that well abandonment activities would result in surface rupture of the fault. As discussed on Draft EIR p. 3.7-28, the entire space of wells to be abandoned would be filled with cement or drilling mud, as regulated by DOGGR.

Further, the risk of a well blowout is extremely low during abandonment operations, so the potential for impacts to surface rupture due to a well blowout are very unlikely. As well abandonment is done at the time when the reservoir pressure has been depleted over the life of the well, the well no longer has the potential to flow fluid to the surface on its own. However, regardless of the depleted nature of the reservoir, blowout prevention equipment is used during all abandonment operations, which further decreases the risk of an uncontrolled flow of fluid to the surface. Finally, the risk of a blowout during a well abandonment is an independent risk for that one well. Thus, whether 40 wells are abandoned in one year, or one well is abandoned each year for 40 years, the risk for each well remains the same.

Response 4b-72

The comment asks if additional water would be needed, and where additional source wells would be located. The comment also requests explanation of the process for analyzing impacts associated with additional wells.

As discussed in Draft EIR Section 2.5, *Project Characteristics*, the project includes the drilling and operation of up to 50 wells on the Pumpkin Patch site and up to 70 wells on the LCWA site. These 120 wells would be a mixture of production wells, injection wells, and water source wells. The source wells are included in the proposed well count and do not represent “additional” wells; the drilling and operation of the source wells would be similar to the drilling and operation of the production and injection wells, as identified in the EIR. Also, the project’s source wells would be located within the project’s well cellars.

The source wells would produce water from zones with total dissolved solids (TDS) higher than 10,000 ppm, and would be separated by impermeable clay and rock from any underground sources of drinking water (USDW) reservoirs. The water obtained from the source wells would be combined with the water produced during the oil extraction process, and injected back into the production formation. The water from the source wells is needed to augment the volume previously occupied by the oil and natural gas. The final requirements for injection volumes would be determined by DOGGR and may change over time as annual ground level surveys are performed. Typically, the required injection volume is at least one barrel of water per each barrel of oil and water produced (though some fields have a higher water ratio).

Response 4b-73

The comment states that a study (Honegger 2016) was conducted analyzing impacts from an oil pipeline crossing the Newport-Inglewood Fault, and asks if a detailed geotechnical evaluation was conducted for the City Property site.

Pipeline design and construction are typically completed under pipeline specific design codes rather than commercial building codes. The pipeline codes specify the design criteria that should be followed by the design engineer when specifying material, routing and construction techniques.

In the case of the pipeline interconnections between the Pumpkin Patch and LCWA sites, the design codes for the liquid lines would include DOT 195, Transportation of Hazardous Liquids by Pipeline and ASME B31.4, Pipeline Transportation Systems for Liquids and Slurries. The design codes for the natural gas lines would include DOT 192, Transportation of Natural and Other Gas by Pipeline and ASME B31.8, Gas Transmission and Distribution Piping Systems. The piping codes provide performance criteria for pipelines crossing geohazards but do not have any specific criteria requiring a formal geotechnical investigation.

Response 4b-74

The comment states that the design criteria do not represent a “worse-case scenario,” and thus the impact analysis does not examine the maximum potential impact.

There is considerable uncertainty related to estimating the severity of earthquake-related hazards (as well as most other natural hazards), and there is always the potential, however remote, for some apocalyptic event. The approach followed by Honegger is consistent with current earthquake engineering practices (refer to Draft EIR Appendix E8). As an example, current seismic building code requirements do not consider the worse-case scenario. Instead, seismic design motions are based upon what is considered a reasonable level of performance. This performance is currently defined in terms of a probability for failure from a seismic event. This is currently 1 percent in 50 years or 1/4,975 per year. Or, for specific scenario estimates of seismic ground motion, designing for motions with a 16 percent chance of being exceeded for the best estimate earthquake magnitude (not necessarily the largest historical earthquake).¹

Requirements for fault crossing designs for oil and gas pipelines are not explicitly defined in any national standards or government regulations. Industry guidelines² suggest the following based upon recommendations on appropriate earthquake magnitude from a geologist:

Project Scenario	Design Displacement
1. Flammable or toxic gas and liquids pipelines located in Class 4 areas as defined in ASME B31.8.	Maximum Considered Fault Displacement.
2. Pipelines of strategic national or international importance or transporting large quantities of natural gas or crude oil (typically NPS 36 or larger pipelines).	2/3 x Maximum Considered Fault Displacement.
3. Liquid hydrocarbon pipelines.	2/3 x Maximum Considered Fault Displacement.
4. Natural gas pipelines located in High Consequence Areas ^a and not identified according to Scenarios 2, 3, or 4.	2/3 x Maximum Considered Fault Displacement.
5. Natural gas pipelines other than those identified by Scenarios 2, 3, or 4 nor located in high-consequence areas.	Average Fault Displacement
a. High Consequence Areas (HCAs) as defined in United States Code of Federal Regulations Title 49, Subtitle B, Chapter I, Subchapter D, Parts 192 and 195.	

¹ American Society of Civil Engineers, 2017. “Minimum Design Loads and Associated Criteria for Buildings and Other Structures,” ASCE Standard ASCE/SEI 7-16, Sections 21.2.1 and 21.2.2.

² Honegger D.G. and Nyman, D.J., 2017. “Pipeline Seismic Design and Assessment Guideline,” Pipeline Research Council International, Inc., Catalog No. L51927-R01.

The connecting pipeline was designed consistent with the above recommendations.

Response 4b-75

The comment asks if the proposed pipeline design incorporates the recommendations identified in the Honegger 2016 study, and requests analysis of how the aboveground design would perform if fault displacement occurs.

As identified in Response 4b-74, seismic design motions are based upon what is considered a reasonable level of performance. This performance is currently defined in terms of a probability for failure from a seismic event. Requirements for fault crossing designs for oil and gas pipelines are not explicitly defined in any national standards or government regulations. For liquid hydrocarbon pipelines, industry guidelines suggest $2/3 \times$ Maximum Considered Fault Displacement. Analysis to confirm the adequacy of the size and location of expansion loops within the design alternatives would be performed as part of the final design once a preferred design alternative is selected.

The proposed pipelines are consistent with the recommendations provided in the Honegger 2016 study (refer to Draft EIR Appendix E8). Design objectives for the proposed project are to maintain operation following a minor seismic event and to survive without collapse and provide public safety following a design level event (refer to Response 4b-74). The pipelines would be installed above ground through the fault area, allowing the pipelines to “float” on the ground in the case of a seismic event. There may be visible damage after a design magnitude event but total failure is unlikely.

Identification of a worst-case spill scenario, explanation of the mechanisms in place to prevent, detect and/or contain a worst-case spill, and analysis of the worst-case spill is provided in Responses 4b-11, 4b-12, and 4b-14, respectively.

Response 4b-76

The comment requests information on the maximum spill volume should a pipeline rupture occur, and also requests analysis of the potential impacts from a spill.

In the unlikely event all the aboveground liquid lines are impacted with a full line rupture, a conservative estimate can assume the entire line volume spills, plus 5 minutes of the peak pump rates (refer to Response 4b-11 and 12). The total line fill volume for the aboveground lines is approximately 16,600 gallons. This would result in a total spill of 30,816 gallons.

As identified in Response 4b-12, the project includes a variety of leak detection mechanisms, including fiber optic cables and secondary leak detection. These features would provide early detection in the unlikely event of a pipeline rupture, and allow for the rapid shut off of flow. Additionally, the pipeline would also be located in an earthen berm, designed to contain approximately 140,000 gallons.

As the total spill volume (30,816 gallons) is just under 25 percent of the available 140,000-gallon containment trench, it is unlikely the fluid would breach the top of the berm. Impacts to the adjacent habitat and waterways are not anticipated as the spill would be contained within the trench. The spilled fluid could be removed by approximately seven vacuum trucks, and disposed of as appropriate (refer to Response 4b-11).

Response 4b-77

The comment asks what mitigation measures are required to ensure that the risk of a spill is reduced as much as possible.

The comment was responded in Responses 4b-10 through 4b-13. As previously discussed, the proposed project includes numerous design features intended to detect, prevent and/or contain a spill or leak. For additional information regarding the pipelines, steel pipe offers the best physical protection against physical damage and damage from geohazards, the connecting pipelines would be designed with carbon steel welded pipe. The pipelines would be coated with Fusion Bonded Epoxy (FBE) and protected from corrosion with a CP system. The pipelines would be installed above ground through the fault area, allowing the pipelines to “float” on the ground in the case of a seismic event. As identified in Response 4b-12, the project includes a variety of leak detection mechanisms, including fiber optic cables and secondary leak detection. These features would provide early detection in the unlikely event of a pipeline rupture, and allow for the rapid shut off of flow. Additionally, the pipeline would also be located in an earthen berm, designed to contain approximately 140,000 gallons. As the facility design includes measures to prevent significant impacts from a pipeline rupture, additional mitigation is not recommended.

Response 4b-78

The comment requests a more robust analysis of fault rupture on the City, and an analysis of the maximum potential spill, as this would be required to demonstrate consistency with California Public Resources Code (PRC) Sections 30230, 30231, 30232, 30233, 30240, and 30253 of the Coastal Act.

Design objectives for the proposed project are to maintain operation following a minor seismic event and to survive without collapse and provide public safety following a design level event as previously discussed in Response 4b-74. The pipelines would be installed above ground through the fault area, allowing the pipelines to “float” on the ground in the case of a seismic event. There may be visible damage after a design magnitude event but total failure is unlikely. The potential worst cases of spills were previously discussed in the Responses 4b-10 through 4b-13.

Finally, the Applicant would require the construction and wetlands restoration contractors to comply with all applicable codes, laws, and standards, including the PRC. Additional information to demonstrate consistency with PRC Sections 30230, 30231, 30232, 30233, 30240, and 30253 of the Coastal Act will be provided if requested.

Response 4b-79

The comment requests analysis of the potential for existing wells on the Synergy Oil Field and City Property sites to result in fault rupture.

Induced seismicity was discussed in Draft EIR Appendix E6. In California, oil production has occurred for at least 140 years. Throughout this time, zones of high oil production have been found predominantly in fault zones, in close proximity to fault lines. Commonly, it is the fault that splits the rock and “releases” the oil, bringing it close enough to the surface to be extracted. In 2012, California produced 197 million barrels of crude oil, out of the total 2,375 million barrels of oil produced in the United States. Oil production in California is concentrated primarily in Kern County, San Joaquin Valley, and the Los Angeles basin. The existing wellfield on the Synergy Oil Field and City Property sites has been in operation since the 1920’s.

Historically, there have been no known instances of the existing wells on these sites triggering fault rupture, nor are there known instances of fault rupture adversely impacting existing wells. Further, the project includes the phased removal of all wells from the Synergy Oil Field and City Property sites, so any potential for rupture, though remote, diminishes further as more wells come offline.

Also, the risk of a well blowout is extremely low during abandonment operations, so the potential for impacts to surface rupture due to a well blowout are very unlikely. As well abandonment is done at the time when the reservoir pressure has been depleted over the life of the well, the well no longer has the potential to flow fluid to the surface on its own. However, regardless of the depleted nature of the reservoir, blowout prevention equipment is used during all abandonment operations, which further decreases the risk of an uncontrolled flow of fluid to the surface (refer to Response 4b-71).

Response 4b-80

The comment states that the analysis of Impact GEO-2 does not include an analysis of how a seismic event could affect construction activities.

Impact GEO-2 examines whether the project would expose people or structures to potential adverse effects as a result of strong seismic ground shaking. The impacts of ground shaking during construction activities was described on Draft EIR p. 3.5-32. Because California is such a seismically-prone area, the State has developed stringent regulations, which have been incorporated into State and local building codes that identify various design specifications, building techniques, and earthquake design requirements to mitigate the potential for damage or adverse impacts to construction activities and operational structures from seismic events. During actual construction of the project itself, the construction contractor would be required to comply with safety regulations to minimize the potential for damage and injury to persons, equipment and structures during a seismic event.

Response 4b-81

The comment states that the analysis of Impact GEO-2 does not include an analysis of how a seismic event could affect operational activities, and requests information regarding what is the identified geotechnical risk, how the risk would be reduced, and what level of risk remains after mitigation.

The potential impacts of a seismic event are discussed in Impact GEO-1 on Draft EIR p. 3.5-30. Further discussion of the impacts of a seismic event on operational activities are addressed in Responses 4b-73 through 4b-79, which describes how a seismic event could affect the operations of pipelines and wells. All structures would be built to withstand seismic groundshaking, which would be demonstrated by compliance with the applicable building code regulations and recommendations from the site-specific geotechnical studies. Compliance with these building code standards would reduce the risk presented by a seismic event. Buildings would be constructed to withstand the anticipated maximum level of seismic shaking, which is estimated to be a Maximum Credible Earthquake of 7.0 magnitude. The methods that would be used include bracing and anchoring techniques; soil stabilization through use of piles or soil conditioning; or soil removal and recompaction. Upon implementation of these measures recommended in the site specific geotechnical study, the risk would be reduced to less than significant.

Response 4b-82

The comment asks for design and stability information associated with the berm and sheetpile wall, including the likelihood of failure as the result of a significant seismic activity.

The dike and sheet pile wall would be designed in accordance with the CBC, the County of Los Angeles Building Code, and ASCE 7, Minimum Design Loads for Buildings and Other Structures, to withstand seismically induced ground shaking. These designs are based on a maximum considered earthquake ground motion. This is defined as the motion due to an event with a 1 percent probability of exceedance within a 50-year period or 1/4975 per year (refer to Response 4b-74). The berms are composed of soil compacted to a minimum of 90 percent. As required in Mitigation Measure GEO-1, 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 objectives for the proposed project are to maintain operation following a minor seismic event and to survive without collapse and provide public safety following a design level event (refer to Response 4b-74). There may be visible damage after a design magnitude event but total failure is unlikely.

Response 4b-83

The comment provides a summary of the project and its setting, and requests analysis of the potential impacts associated with a seismic event (to include i, ii, and iii).

The comment is a summary introduction for Comments 4b-84, 4b-85, and 4b-86. Refer to Responses 4b-84, 4b-85, and 4b-86.

Response 4b-84

The comment requests description of an average and worst-case seismic event, including a thorough analysis of the magnitude and rates of associated ground motion.

As explained in the Response 4b-74, there is considerable uncertainty related to estimating the severity of earthquake-related hazards (as well as most other natural hazards), and there is always the potential, however remote, for some apocalyptic event, so terms such as “average” and “worst case” are difficult to quantify. The range of earthquake magnitude estimates for the Newport-Inglewood fault is 7.0 to 7.6 based upon different assumptions on the length of fault rupture and magnitude estimating relationships.³ The best estimate of the annual probability of an M 7.2 earthquake on the Newport-Inglewood fault (magnitude adopted for estimating fault displacement) is approximately 1/1300. The annual probability of an M 7.6 earthquake is considerably lower at approximately 1/3,200.⁴ Design objectives for the proposed project are to maintain operation following a minor seismic event and to survive without collapse and provide public safety following a design level event (refer to Response 4b-74).

³ Field, E.H., Dawson, T.E., Felzer, K.R., Frankel, A.D., Gupta, V., Jordan, T.H., Parsons, T., Petersen, M.D., Stein, R.S., Weldon, R.J., and Wills, C.J., The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF2). U.S. Geological Survey Open-File Report 2007-1437 and California Geological Survey Special Report 203, 2008 (Table 4). Available at <http://pubs.usgs.gov/of/2007/1437/>.

⁴ Field, E.H., Dawson, T.E., Felzer, K.R., Frankel, A.D., Gupta, V., Jordan, T.H., Parsons, T., Petersen, M.D., Stein, R.S., Weldon, R.J., and Wills, C.J., The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF2). U.S. Geological Survey Open-File Report 2007-1437 and California Geological Survey Special Report 203, 2008 (Figure 7). Available at <http://pubs.usgs.gov/of/2007/1437/>.

For consideration of the ground motion, the worst-case ground motion is the horizontal ground motion expressed in terms of ground acceleration. USGS estimates that the peak horizontal ground acceleration (PGA) is 0.604 g.

Response 4b-85

The comment requests information on the proposed project design criteria.

As required in Mitigation Measure GEO-1, 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 objectives for the proposed project are to maintain operation following a minor seismic event and to survive without collapse and provide public safety following a design level event (refer to Response 4b-74).

As identified in Response 4b-12, the foundations and the structural steel would be designed in accordance with the CBC, the County of Los Angeles Building Code and ASCE 7, Minimum Design Loads for Buildings and Other Structures, to withstand seismically induced ground shaking. These designs are based on a maximum considered earthquake ground motion. This is defined as the motion due to an event with a 1 percent probability of exceedance within a 50-year period (a recurrence interval of approximately 4,975 years) (refer to Response 4b-74). The project structures would be designed using a Seismic Risk Category of III in accordance with CBC Table 1604.5.

Atmospheric tanks shall be built in accordance to API 650, Appendix E, and pressure vessels shall be built in accordance to ASME Section XIII. Facility piping shall be built in accordance to ASME B31.3 and the interconnecting pipelines shall be built in accordance to ASME B31.4 and B31.8. Additionally, all pipelines shall conform to CA AB 864 and 49 CFR 195.

Response 4b-86

The comment requests analysis of potential impacts from an oil spill due to a seismic event, and also an analysis of potential impacts to drill rigs, storage tanks and other equipment on site due to a seismic event. The comment also requests identification of the likelihood of damage to underground wells.

The potential worst cases of spills were previously discussed in the Responses 4b-10 through 4b-13. The project would be designed and constructed consistent with all codes, laws, and regulations, as applicable. Design objectives for the proposed project are to maintain operation following a minor seismic event and to survive without collapse and provide public safety following a design level event (refer to Responses 4b-74 and 4b-85).

In the LA Basin, impacts to underground wells due to earthquakes are very rare. Should a well be damaged by ground movement to the point where it is no longer productive, it would be abandoned. There are many techniques to seal a damaged well with cement. DOGGR permits and oversees well abandonment procedures to ensure all hydrocarbon zones are isolated and all water bearing zones (less than 10,000 ppm) are protected; therefore, impacts are not anticipated.

Consistent with other drill rigs in operation in the LA Basin, the project's rigs have an externally guyed mast. Engineered tie downs that are pull-tested as part of the guy wire system would also be used. As drilling within

fault zones is common (refer to Response 4b-79), and drill rigs are intrinsically designed for withstanding seismic events, impacts are not anticipated.

Response 4b-87

The comment references earlier comments pertaining to Impact GEO-2 (Comments 4b-80 through 4b-86).

Refer to Responses 4b-80 through 4b-86.

Response 4b-88

The comment states that the analysis of Impact GEO-5 does not include an analysis of impacts related to project-related erosion, and that a discussion of sources or erosion during construction and operation and associated impacts be provided in addition to the discussion of the SWPPP that has been provided.

The sources of erosion during construction and operation of the project are stormwater, water discharge associated with the construction process, landscape irrigation water discharge, wave and tidal water movement, wind, and equipment activities that would generate dust. The potential impact to the adjacent lands, wetlands, and waterways due to erosion, if not mitigated, is the transmission of sediment and other eroded materials, debris and oil operation materials to the adjacent properties, which can degrade water quality, reduce nutrients and plant life growth and negatively affect animal life. As discussed on Draft EIR pp. 3.5-35 to 3.5-37, potential impacts associated with erosion would be addressed through compliance with NDPS Construction General Permit and implementation of an SWPPP [Stormwater Pollution Prevention Plan], and the Long Beach Stormwater Management Program Manual, which requires implementation of various BMPs, the Long Beach MS4 Permit, and the City of Long Beach LID [Low Impact Development] requirements and the LID Plan that has been prepared for the project. Compliance with these existing statutory and regulatory requirements reduce the impact to less than significant.

Response 4b-89

The comment asks if the project includes temporary stockpiling of soil and if it does where the stockpiles would be located and what measures would be in place to ensure there are no significant impacts associated with erosion.

Tidal channel grading within the wetland restoration area may result in excess earthen material. The majority of the material would be used to construct the earthen berm and trail. Any excess material that is not required for off-site disposal would be stockpiled within the southern portion of the site, on existing disturbed areas such as the pad where the western tank farm would be removed. No impact to wetlands would occur with the stockpile and the stockpile would be hydroseeded with a native grassland seed mix to prevent erosion. Sandbags or other BMPs may be utilized around the perimeter of the stockpile as well.

Response 4b-90

The comment asks how the Applicant proposes to reduce sedimentation and erosion into Steamshovel Slough during construction of the levee breaches.

As discussed on Draft EIR pp. 3.5-35 through 3.5-37, an SWPPP would be prepared by a certified Qualified SWPPP Developer (QSD) for construction activities on the Synergy Oil Field site. The SWPPP would include BMPs to be implemented during and post construction. The project would also require Clean Water Act

Section 401, Water Quality Certification, from the Los Angeles RWQCB prior to initiation of work in waters of the State. BMPs that would be considered for implementation at the berm breaches include, but are not limited to, creation of tidal channels to receive tidal hydrology prior to breaching the berms, removal of the berms from the top down along the entire length of breach area to prevent small inlets from eroding the remaining sides of the berm, and temporary rock wall at the toe of slope.

Response 4b-91

The comment asks what the expected rate of erosion associated with the increase in tidal prism and whether and when the system is expected to reach equilibrium.

The new connections have been sized through analysis and iteration to be large enough to provide the cross-sectional area needed to reduce tidal flow velocities and minimize potential erosion and disturbance to the existing marsh. Minor and small-scale erosion is expected in channel connections between Steamshovel Slough and the newly restored wetlands. This minor erosion is part of natural processes of the newly constructed channel cross-sections adjusting to the new equilibrium conditions. The degree of erosion and consequent deposition should be very minor, and would not substantially change the physical and biological conditions of Steamshovel Slough. It would likely manifest itself as slight changes to the subtidal bathymetry of the channels, with little to no net change in habitat type. It could occur immediately post construction and up to six months, and should be monitored to document extent and duration. Adaptive management actions would not likely be needed.

Response 4b-92

The comment references the discussion in the Draft EIR relating to Impact GEO-6, which states that the Applicant would be reinjecting produced water into the oil production zone to reduce the risk of subsidence. The comment recommends implementation of a monitoring and reporting requirement to ensure that risks associated with subsidence are reduced to an acceptable level or, alternatively, if there is an accepted standard or requirement from another regulatory agency that addresses this concern, the comment requests that the information be identified instead.

The project's injection wells are classified as Class II wells by the USEPA. Class II wells are heavily regulated by DOGGR, under provisions of the state PRC and the federal Safe Drinking Water Act. Class II injection wells fall under DOGGR's Underground Injection Control (UIC) program. The UIC program 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.

Operators are required to obtain a permit through DOGGR prior to initiating injection. Injection permits include many conditions, such as approved injection zones, allowable injection pressures, and testing requirements. All Class II wells are monitored by DOGGR engineers to ensure the wells are operated properly and maintain mechanical integrity. Additionally, DOGGR engineers typically inspect most well sites annually. Samples of the injected fluids may be taken at any time to confirm compliance. As inspection and monitoring are requirements under the UIC program, no additional monitoring requirements are needed.

Response 4b-93

The comment references a statement on Draft EIR p. 3.5-37 regarding the potential for collapse or subsidence at the Pumpkin Patch and LCWA sites due to the uncertain nature of landfilled materials at these sites. The

comment recommends further geotechnical investigations and incorporation of that information in the Draft EIR, or alternatively that the City require the removal of the landfilled material.

While it is true that collapsible fill soils exist at the Pumpkin Patch and LCWA sites, geotechnical investigations have already been completed to address the potential impact to the proposed project. Each site is discussed below.

LCWA Site

The LCWA site was investigated with three hollow stem augers and four cone penetration tests (CPTs) for a total of seven subsurface exploration locations. In all cases, no clustered concrete construction debris was found below the surface. The void in the concrete debris found in one boring during a prior study is believed to represent a local condition and can be mitigated with ordinary grading techniques. There is no significant impact from “unknown” fill materials at the LCWA site.

Pumpkin Patch Site

The Pumpkin Patch site features a previous landfill that has been investigated. The landfill area has been determined from subsurface exploration consisting of both auger borings and CPTs. The nature of the fill materials has been identified, evaluated and the impact from settlement analyzed. A portion of the landfill is below the groundwater table, and is identified as “wet” trash, while the portion above the groundwater table is “dry” trash. A cover of fill soil exists over the trash pit.

The impact to the site was addressed by evaluating the potential for settlement of “wet” trash area and associated alluvial materials. This assumed the removal of the upper approximately 15 to 18 feet of dry trash and overlying fill cover.

The evaluation indicated that settlement would occur in the wet trash material and a minor amount in the wet alluvial soil below the wet trash. As the materials are saturated, settlement due to load would be minimal; therefore, surcharging of the area would have a limited impact on the overall settlement. The majority of the settlement would be attributable to the decomposition and oxidation of the organic materials in the wet trash zone. The results of the detailed site evaluation indicated the following.

Estimated collapse of wet materials	Estimated maximum settlement (feet)
5 percent	1.53
10 percent*	2.10
15 percent	3.07
20 percent	3.55
* Based on comparisons with landfill sites of known trash thickness and settlement over time. The amount of remaining settlement for any given thickness of trash diminishes over time with 10 percent representing our best estimate of remaining settlement for this site.	

Based on the results of the overall estimated settlement, two fundamental categories of mitigation were considered. The first is to remove the trash and transport it to an appropriate landfill, and fill in the resulting cavity with engineered fill. This scenario would allow construction of improvements without further mitigation. The second category would be to remove a portion of the dry trash adequate to create a “cap” then

utilize deep foundations (driven or CFA piles) to support structures with structural slab floors to allow an air gap between the trash pit and the building floor.

Response 4b-94

The comment asks if the Applicant is proposing to implement either of the recommendations identified in the preliminary geotechnical investigations.

Yes, the Applicant would implement these recommendations. Typically, the foundations for the structures and equipment would be deep foundations such as driven or augured piles with concrete pile caps to limit the seismic induced settlements. The foundations and the structural steel would be designed in accordance with the CBC, the County of Los Angeles Building Code and ASCE 7 “Minimum Design Loads for Buildings and Other Structures” to withstand seismically induced ground shaking. The project structures would be designed using a Seismic Risk Category of II or III in accordance with CBC Table 1604.5 where applicable.

Response 4b-95

The comment recommends revisiting Draft EIR Section 3.5, *Geology, Seismicity, and Soils*, after a more thorough analysis of erosional impacts is undertaken.

As discussed in Responses 4b-88, 4b-90, 4b-91, and 4b-115, the project has identified measures that would be developed and BMPs that would be implemented through compliance with existing laws and regulations governing water quality, including preparation and implementation of an SWPPP and LID Plan. No additional analysis is required. As to cumulative impacts from other related projects, Draft EIR pp. 3.5-39 and 3.5-40 addressed potential cumulative impacts on water quality. All related projects would be required to comply with the same statutory and regulatory programs as the project, thereby minimizing the potential for significant cumulative impacts in connection with erosion to occur. Again, no additional analysis is required as the potential impacts and measures to address those impacts were fully addressed in the Draft EIR.

Response 4b-96

The comment requests the cumulative impacts of an oil spill resulting from structure damage in a seismic event.

The potential worst cases of spills were previously discussed in the Responses 4b-10 through 4b-13. As identified in response to Response 4b-11, the cumulative worst-case scenario would involve, simultaneously, pipeline ruptures on the Synergy Oil Field and City Property sites, and full tank rupture of all tanks on the Pumpkin Patch and LCWA sites. As analyzed in Response 4b-11, impacts from a cumulative worst-case spill scenario are not anticipated. The design objectives for the project are to maintain operation following a minor seismic event and to survive without collapse and provide public safety following a design level event (refer to Response 4b-12). Further, a worst-case spill on each parcel would be contained within the respective containment systems and fluids would not migrate off site (refer to Response 4b-11).

Response 4b-97

The comment asks whether well abandonment activities—which would occur over a period of 40 years—were incorporated into the construction emission calculations for the first 4 years of project construction.

All of the well abandonment activities were put into the first 4 years. This is a worst-case assessment since air quality impacts are based on the highest daily rate of emissions. Also, it is not known what wells would be abandoned when, and the analysis that was performed provides flexibility for the Applicant to remove more wells more quickly if desired.

Response 4b-98

The comment asks why if the majority of construction-related GHG emissions occur during the project's first 4 years, why they are annualized over a period of 30 years.

Greenhouse gases stay in the upper atmosphere for decades and even centuries. Per SCAQMD guidance, the construction emissions for all projects should be annualized over the life of the project, which SCAQMD believes to be typically 30 years. Therefore, the construction emissions were spread over a 30-year period per SCAQMD guidance.

Response 4b-99

The comment asks what "curtailed emissions" are and how they are calculated.

The project has existing emissions from its current oil production activities. In most cases, because of the age of the equipment, the emission sources are inefficient and are considered higher polluting sources. The proposed project would replace many of the existing sources of air emissions with more efficient, less polluting systems. The existing emissions that would be terminated are the "curtailed emissions." The methodology for calculating the existing emissions that would be curtailed is described in detail in Draft EIR Appendix B1, Air Quality Assessment, Section 1.8, Existing Emissions.

Response 4b-100

The comment asks how the screening level for PCBs described on Draft EIR p. 3.7-6 compare with current screening levels for habitat areas and/or wetlands.

The soil investigations that were described on Draft EIR p. 3.7-6 consisted of a series of samples taken from sixteen specific points on the Synergy Oil Field and City Property sites. The purpose of the sampling program was to identify the extent, if any, of total petroleum hydrocarbons, volatile organic compounds and metals in the soil. If concentrations requiring clean up or remediation were identified, remediation measures would be undertaken prior to implementation of any wetlands restoration activities. As discussed in Response 4b-101, the soil investigation used the most current RSLs established by the DTSC as the comparative standards. There are no comparative standards for ecological receptors, however. The soil samples that have been obtained from the test programs would be examined in an ecological risk assessment to evaluate the potential risk to ecological receptors. The assessment would include an evaluation of the potential threat, if any, posed by residual PCBs to ecological receptors at the wetlands, and whether the concentration exceed the 1 mg/kg standard for PCBs, which is in the federal Toxic Substances Control Act. It should be noted that although the 1 mg/kg standard would be applied, this is not a human health risk standard. The results would be submitted to the DTSC, with a request for an agency concurrence letter that any residual concentrations that may be in the soil pose no risk to ecological receptors.

Response 4b-101

The comment asks what screening levels were used in the soil investigations.

The consultant, AEC, used the most-current RSLs as the comparative standards (refer to Section 3.7.3, Regulatory Framework, for further discussion of screening levels).

Response 4b-102

The comment states that if cleanup activities are proposed, the location, boundaries, and volumes of materials to be removed should be included in the environmental analysis.

Refer to Response 4b-6. Draft EIR Figure 3.7-2 has been updated (split) to provide Figure 3.7-2b, which shows the areas to be excavated, in Chapter 10, *Draft EIR Revisions*, of this Final EIR.

Response 4b-103

The comment notes that oil operations had historical practices of creating sumps next to oil wells for disposal of produced water and drilling muds and asks if there are records for these sumps, and if the sampling conducted under the Phase 2 tests was designed to investigate potentially contaminated sump areas.

There are aerial photographs that depict the general location of each sump, however, the majority of the subject area has been graded and the prior contents have been moved. The sampling points have not been specifically located in former sump areas, however, there has been overlap and these investigation(s) have not conclusively identified the presence, and/or absence of prior sumps. Additionally, there has been little oil production activities conducted on the portion of the Synergy Oil Field site that is proposed to be restored for mitigation bank purposes. Once oil operations terminate on the southern portion of the Synergy Oil Field site, additional testing of the oil production areas would be conducted, including placing borings in former sumps and testing the soils in those areas.

Response 4b-104

The comment asks why only one sample was taken from the City Property site as part of the Phase 2 work.

Unlike the Synergy Oil Field site, no restoration work is being proposed at the City Property site. The site will continue to be operated as an oil field for the next 40 years. Because no restoration work has been proposed, the need for testing at the City Property site is not the same degree as testing in the area of proposed wetlands restoration on the Synergy Oil Field site. It should be noted that since publication of the Draft EIR, additional soil samples have been collected from the City Property site proximal to the on-site tank battery. The 8 boring locations drilled during the 2016 and 2017 investigations are shown on Final EIR Figure 3.7-2a; a total of 22 samples were analyzed. The analytical results indicate very minor crude oil impact, which most likely—given the low level of concentrations—can be left in place, subject to concurrence by the RWQCB.

Response 4b-105

The comment states that many operators consider fracking to be a normal part of operations, so it might not be specifically identified as a utilized drilling practice. The comment states that if the Applicant intends to frack, the impacts should be examined in this EIR. The comment also suggests that a mitigation measure could be added requiring the Applicant to examine impacts associated with fracking if and when it chooses to frack in the future.

Fracking is not required for all wells to be productive, and is not always part of “normal” operations. Fracking is applied only when the permeability of the formation is relatively low. In general, the lower the permeability,

the lower the flow rates. Reservoirs with low permeability (such as in the Bakken shale, the Marcellus shale, and several other unconventional formations) are non-commercial without fracking. As fracking is very expensive, it is avoided whenever it is not required to make a formation commercial. Fracking is not planned for this project because this is not an unconventional formation and data from nearby wells drilled in this same formation have demonstrated sufficient permeability to produce commercially without fracking.

Fracking is now regulated in California. Senate Bill 4 (Pavley) was signed into law by Governor Edmund G. Brown, Jr. on September 20, 2013, and amended multiple sections of the PRC and the Water Code of California. Senate Bill 4 (SB 4) established a comprehensive regulatory program for oil and gas well stimulation treatments. Pursuant to SB 4, in July 2015, the “Final Permanent Well Stimulation Treatment Regulations” went into effect and the “Analysis of Oil and Gas Well Stimulation Treatments in California” EIR was certified. Also, a permit system was formed, requiring oil and gas operators to submit a permit application for DOGGR’s review and possible approval prior to conducting well stimulation treatments (such as fracking).

Response 4b-106

The comment requests that the volumes of soil to be removed as part of site remediation work be identified.

Refer to Response 4b-6.

Response 4b-107

The comment asks if the proposed remediation adequately addresses any sumps on the Synergy Oil Field or City Property site, and the possibility of unknown sumps to be encountered.

Refer to Response 4b-103.

Response 4b-108

The comment requests consideration of a worst-case analysis on the City Property site in the absence of data regarding potential impacts regarding hazardous materials.

The potential impacts related to hazardous materials are discussed in Impact HAZ-1 and HAZ-3. In addition, and as discussed previously, the Phase 2 testing included additional testing around the tank farm area of the City Property site. Unlike the northern portion of the Synergy Oil Field site, the City Property site would be operated as an oil field for the next 40 years, and thus extensive testing to determine its appropriateness for post-oil operations uses, e.g., as restored wetlands, has not been conducted. Given that oil operations will continue on this site for the next 40 years, extensive testing was not conducted. It would be more appropriate to conduct testing once oil operations have ceased to determine what clean up, if any, is required for use of the property post oil production.

Response 4b-109

The comment requests additional information on the DOGGR and Department of Health Services regulations that would reduce potential impacts from well plugging and abandonment.

As explained in Draft EIR Section 3.7.3, Regulatory Framework, DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources, summarizes the numerous regulations covering oil production. The requirements for well plugging can be found in California Code of

Regulations Section 1723. To plug and abandon a well, a Notice of Intention to Abandon (Form OG 108) must be filed with the appropriate DOGGR district office, and a permit to conduct operations must be received from DOGGR prior to commencing operations. The form must include a wellbore schematic diagram. The diagram includes casing intervals and sizes, perforation locations, cement plug depths inside the casing, and the location of the cement outside casing.

Well abandonment operations commence with filling the hole with drilling mud. Cement plugs would be placed across all oil or gas zones, the freshwater/saltwater interface, the casing shoe (if open hole is below the shoe), casing stub (if casing was removed from the hole), and at the surface. The length required for each plug would vary. If there is junk in the hole, a cement plug is required to be placed on top of the junk. If there is uncemented casing at the base of freshwater interface, cement must be squeezed through perforations in the casing. Plugging and abandonment operations require witnessing by a Division engineer. This would be identified in the plugging permit.

Response 4b-110

The comment requests information on the magnitude of a potential blowout, specific procedures in place to address a blowout, and a discussion on the potential impacts associated with a blowout.

Well blowouts are unlikely. In a 2009 study,⁵ based on wells drilled/constructed in DOGGR District 4 from 1991 to 2005, there was 1 blowout per 10,000 to 60,000 well-years (Table 1, Summary of Well Blowout Risks for California Oil and Gas District 4, 1991–2005). The study, a copy of which is on file at the City, also showed that the number of blowouts are decreasing over time due to improvements in well control practices (and likely due to declining formation pressure).

The magnitude of a blowout would depend on the well's capacity to flow on its own. If the well cannot flow on its own, the magnitude of a blowout is minimal, because there is not enough pressure in the formation to continually feed a stream of fluid to the surface without the assistance of a pump. The project includes Electric Submersible Pumps (ESPs) in all wells, as the project's wells are not expected to flow without a pump in the well.

As summarized in DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources, DOGGR requires the mandated use of blowout prevention equipment. All rig crews are trained in well control, which includes response to events that give ample warning of any breach in primary barrier to well pressure. Specific procedures in place to address a blowout include:

1. DOGGR regulations specifying the type of Blowout Prevention Equipment (BOPE) required for any well drilled. This requirement takes into account the proximity of the well to populated areas.
2. Required well controlled training for the rig crew. This training ensures that rig crew members are trained in recognizing any breach in the primary pressure barrier (hydrostatic pressure of the drilling mud), and in how to respond to such an occasion. This response includes shutting in the BOPE and increasing the drilling mud density to re-establish the primary barrier of hydrostatic pressure.
3. Regular well control drills are mandated by the DOGGR and would be conducted regularly on the rig to ensure crews know how shut in the BOPE and to calculate the required increase in mud density to

⁵ Preston D. Jordan and Sally M. Benson, "Well Blowout Rates in California Oil and Gas District 4—Updates and Trends," *Exploration and Production—Oil and Gas Review*, 7, 2, 59–65, 2009.

re-establish the hydrostatic pressure barrier to flow. These drills ensure proper and prompt crew response.

4. Because the magnitude of the blowout is based on the well's capacity to flow, and the wells to be drilled are anticipated to require pumps to produce any fluid at all, the impact of a blowout is also anticipated to be minimal.

Response 4b-111

The comment requests information on how much material would be contained in the berm in the event of a spill, and how much would soak into the ground. The comment also requests identification of the long term consequences to surrounding habitat areas if there is a spill within the berm, and analysis of a scenario where the containment berm is breached or other reasonable worst-case scenario.

In the event of a pipeline rupture, the maximum spill volume would be approximately 30,816 gallons. As explained in Response 4b-12, the pipeline is designed to detect both large and small leaks. The pipelines would feature multiple fiber optic cables for added detection. Additionally, the water injection, gathering, and dry oil lines would have a secondary leak detection system monitoring pipeline flow, pressure, and temperature. The leak detection system(s) would generate a signal causing emergency shutdown (ESD) valves on both the Pumpkin Patch and LCWA sites to close within 5 minutes to minimize the total volume spilled. This is a very conservative estimate, as it is likely that the ESD valves would result in a shutdown much sooner. Accordingly, a spill of 30,816 gallons represents a worst-case spill scenario.

The pipeline containment system was designed to contain approximately 140,000 gallons. As the total spill volume is just under 25 percent of the available 140,000-gallon containment trench, it is unlikely the fluid would breach the top of the berm. Impacts to the adjacent habitat and waterways are not anticipated as the spill would be contained within the trench. As the soil within the containment system would be compacted and potentially mixed with clay or other materials to make this area impervious as required by AB 1960 (CCR 1773.1), the fluids are not likely to infiltrate. The spilled fluid could be removed by approximately seven vacuum trucks, and disposed of as appropriate.

Response 4b-112

The comment requests analysis of a multi tank spill wherein the secondary containment system is breached. This information was provided in Responses 4b-11, 4b-12, and 4b-14, but is also generally summarized below.

Pumpkin Patch Site

A 3,000-barrel tank and a 2,000-barrel tank are proposed on the Pumpkin Patch. The storage tanks sit in a common secondary containment walled area, designed to contain approximately 3,150 barrels. In the unlikely event the tanks were both full and were to simultaneously rupture, the entire volume of 5,000 barrels would spill out in to the secondary containment area, and approximately 1,850 barrels would breach the 3 feet tall wall. The site would be graded so spilled fluids would be directed to the well cellars, which have a combined capacity of over 6,000 barrels. All of the overtopped fluid could be contained within the well cellars and there would be no additional fluid spread throughout the site. Fluids within the cellars would be processed, pumped out or disposed of, as appropriate. Off-site impacts are not anticipated as the volume of fluids spilled in a worst-case scenario would be contained on site; therefore, the impact is considered less than significant.

LCWA Site

On the LCWA site, there are four storage tanks: two 14,000-barrel tanks sit in SCA, which is designed to contain approximately 14,400 barrels, and one 5,000-barrel storage tank and one 28,000-barrel storage tank sit in SCB, which is designed to contain approximately 28,800 barrels.

In the unlikely event the tanks within SCA were both full and were to also simultaneously rupture, the entire volume of 28,000 barrels would spill out to the secondary containment area, and approximately 13,600 barrels would breach the 7.5-foot-high containment wall. The site is graded so spilled fluids would be directed to the well cellars. The LCWA site well cellars have a combined capacity of nearly 8,200 barrels. This would result in an additional 5,200 barrels of fluid overtopping the containment wall and not being contained within the well cellars. Based on the site area, the 5,200-barrel volume would spread to a height of less than 3 inches throughout the site. As the site is intended to be surrounded by a wall, it is not anticipated that the fluids would migrate off site, and the impact is considered less than significant.

In the unlikely event the tanks within SCB were both full and were to simultaneously rupture, the entire volume of 33,000 barrels would spill out in to the secondary containment area, and approximately 4,200 barrels would breach the 9.5-foot-tall wall. As above, the site is graded so spilled fluids would be directed to the well cellars. All of the overtopped fluid would be contained within the well cellars, and there would be no additional fluid spread throughout the site.

In the very unlikely event that all four tanks are full (a particularly infeasible scenario inasmuch as the swing tanks are spares and in use when another tank is undergoing maintenance or being serviced) and should they all simultaneously rupture, the combined spill volume would be 61,000 barrels. As the combined containment area is designed to contain 43,200 barrels, approximately 17,800 barrels would breach the containment wall(s). Approximately 8,200 barrels of fluid would be contained within the LCWA site common well cellars. This would result in an additional 9,600 barrels of fluid overtopping the containment wall(s) and not being contained within the well cellars. Based on the site area, the 9,600 barrels would spread to a height of less than 5 inches throughout the site. As the site is intended to be surrounded by a wall, it is not anticipated that the fluids would migrate off site.

In each of the above spill event scenarios, it is not anticipated that the fluids would migrate off site. In all scenarios, any spilled fluids would be processed, pumped out or disposed of, as appropriate. Off-site impacts are not anticipated as the volume of fluids spilled in a worst-case scenario would be contained on site and, therefore, would be considered less than significant.

Response 4b-113

The comment requests analysis of the potential impacts from a fire or upset in the microgrid and natural gas turbine system.

In the case of a fire, the fire detection system would trigger a system shutdown based on the presence of gas, visible flame, and/or high temperature. This shutdown process would include closing fuel gas isolation valves and triggering the fire suppression system. Stopping the flow of fuel to the fire and smothering the flame with carbon dioxide would quickly extinguish the fire within the enclosure.

In case of a fire, the dry natural gas would produce no smoke as it is all small chain hydrocarbons. Additionally, the release of odors would not be anticipated as there is expected to be no sulfur in the produced

gas. If sulfur is found in the gas, it would be removed prior to being sent to the turbines for combustion. The only anticipated impact outside the facility would be the potential for the alarm lights and sirens to be noted by the public immediately adjacent to the facility.

Response 4b-114

The comment inquires if the Applicant is contracted with an Oil Spill Response Organization (OSRO), indicating that if they are not, CCC would likely require this as a condition of the CDP.

The Applicant is contracted with Amergent.

Response 4b-115

The comment recommends that additional data be collected and analyzed to support or refute the conclusion in Draft EIR Section 3.8.2.3, Surface Water Quality, regarding surface water quality because the wetlands restoration program would open the area to tidal influence and it would be important to avoid exposing the relatively pristine habitat in Steamshovel Slough to potential contaminants.

The existing tidal marsh north of Steamshovel Slough is already tidally influenced, so the project would not be increasing exposure of the marsh to potential contaminants. Additionally, to demonstrate that the restoration activities do not degrade water quality within Steamshovel Slough, a water quality monitoring program would be implemented during and after breaching of the existing berm and introduction of tidal flows into the northern portion of the Synergy Oil Field site. This program would likely be focused on suspended sediment concentrations but would also include contaminants that could be present on the site, including heavy metals, and oil-related contaminants. The water quality monitoring program would include pre-construction monitoring/sampling within Steamshovel Slough for comparison.

Response 4b-116

The comment requests analysis of potential water quality impacts associated with a well blowout and the potential for lateral migration of drilling muds and/or oil in deeper areas where conductor casing is not installed.

A well contains multiple intervals of casing concentrically placed within the previous casing run until the target depth is reached. The cemented-in-place steel casing prevents the contamination of freshwater zones. Casing restricts the migration of fluids and serves as a barrier to prevent the transfer of fluids between underground layers. As summarized in DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources, DOGGR has strict guidelines for protecting surface freshwater sources as outlined below:

- Surface casing must be set below the base of fresh water (current threshold is 10,000 ppm of TDS) and cemented to surface. This string of pipe is set BELOW the conductor pipe for the express purpose of protecting the freshwater table, even under blowout conditions.
- Petrophysical analysis is required to establish the depth of the 10,000 ppm water source, which will dictate the depth of the surface casing.
- Deeper strings of casing must be cemented sufficiently to block migration of fluids above the zones of interest. DOGGR requires 500 feet of cement in the casing annulus above the uppermost hydrocarbon bearing zone.

- Drilling muds are designed to form a wall cake (like a “plaster”) on the wellbore face to prevent migration of drilling mud into any formation the well is drilled through. If this “plaster” is not sealing, the well will continually lose fluid, alerting the rig crew that adjustments must be made to the mud system. Such adjustments must be made to allow continued drilling. There are lost circulation materials (such as walnut hulls) that are kept on location specifically for this purpose, although they are often not required, as the clay in the drilling mud is enough to limit any loss to the formation.
- The drilling (or abandonment) mud also provides hydrostatic pressure, which “pushes back” formation fluid pressures. Wells are drilled in a “balanced” or slightly “overbalanced” condition to prevent any fluid loss to the formation, or any influx of formation fluids into the wellbore.

Also refer to Response 4b-110 for a discussion on well blowouts.

Response 4b-117

The comment requests information regarding construction over abandoned wells, including information on the average lifespan of a well plug, and if the construction and grading associated with the proposed project is compatible with DOGGR requirements for avoidance. The comment also asks if it is possible for construction in nearby areas to result in damage to well casings or affect the subsurface seal, and that if this occurs what are the water quality impacts to surrounding habitat areas. The comment also asks how nearby drilling affects nearby plugged wells.

Well history information (including information on abandonment procedures) is either contained on site, available from the DOGGR website, or the appropriate District office. There are no known problems with leaks from the abandoned wells on the Synergy Oil Field and City Property sites.

As discussed in Draft EIR Impact HAZ-1, p. 3.7-28, with an abandoned well, the subsurface seal is comprised of numerous cement plugs. There is generally a cement plug across the formation that was produced, and cement plugs are also set across any hydrocarbon zones above the produced formation. There are also cement plugs set across any holes in the well’s casing and across any freshwater formations. Finally, there is a 50- to 150-foot cement plug set at the very top of the well. Cement has a very long life and has been in use for centuries due to its longevity.

It is common practice to drill multiple wells from a single drill site without running into existing wells, abandoned or otherwise. This is accomplished with the use of anti-collision software, which takes into consideration all nearby well trajectories and devises a drilling path to safely avoid existing wells. Well collisions while directionally drilling are very rare.

Construction over any abandoned well requires consideration of the well’s current condition. DOGGR retains well records dating back to the early 1900s, allowing DOGGR to conduct a well record review, comparing a well abandonment with current abandonment standards. DOGGR has authority to order the re-abandonment of any well that is hazardous or that poses a danger to health, the environment or natural resources. Many such re-abandonments have been done in the LA Basin due to construction over or in the vicinity of an abandoned well.

The most northerly plugged wells would be located within the restoration area where grading activities would occur. The project intends to avoid, to the extent feasible, these abandoned wells during grading operations. However, if grading occurs over an abandoned well, coordination with DOGGR would be initiated to confirm if the abandonment was conducted in accordance with its requirements, or if DOGGR would require re-

abandonment per current abandonment standards. Due to avoidance and compliance with DOGGR abandonment requirements, potential impacts are unlikely and thus considered less than significant.

Response 4b-118

The comment notes that while an SWPPP is a critical component of any construction project that it cannot completely eliminate the potential for releases of sediment-laden runoff especially during berm breaching activities on the Synergy Oil Field site. The comment also reiterates the request for information regarding any temporary stockpiles.

Refer to Response 4b-91 regarding potential increases in sediment-laden runoff, especially during berm breaching activities on the Synergy Oil Field site and Response 4b-90 regarding BMPs. The potential for temporary stockpiles is addressed in Response 4b-89.

Response 4b-119

The comment states that if temporary stockpiles would be used, then the EIR should identify measures to reduce erosion and runoff and sedimentation.

The potential for temporary stockpiles is addressed in Response 4b-89. If any stockpiles are needed, they would be located within the southern portion of the site, on existing disturbed areas such as the pad where the western tank farm would be removed. In light of the location as well as the erosion control measures described below, no impact to wetlands are anticipated as a result of any potential stockpiling. In order to minimize erosion, the stockpile would be hydroseeded with a native grassland seed mix. Sandbags or other BMPs may be utilized around the perimeter of the stockpile as well to minimize the potential for erosion or runoff from the stockpiled material. In addition to these measures that would be implemented if stockpiling is required, the project would require preparation of an SWPPP by a certified Qualified SWPPP Developer (QSD) for construction activities on the Synergy Oil Field site. The SWPPP would include BMPs to be implemented during and post construction. The project would also require Clean Water Act Section 401, Water Quality Certification from the Los Angeles RWQCB, prior to initiation of work in waters of the State. These BMPs would include erosion control measures to avoid or minimize potential issues regarding runoff and sedimentation.

Response 4b-120

The comment requests identification of potential water quality impacts associated with an oil spill from the Pumpkin Patch and LCWA sites.

As explained in Draft EIR Impact HAZ-1, p. 3.7-29, site drainage would be towards well cellars, designed to collect and retain fluids. An oil spill (or worst-case spill) would involve tank rupture on the Pumpkin Patch and LCWA sites, as identified in Response 4b-11. All tanks would be constructed within secondary containment. The project includes facility design, leak detection and containment mechanisms, as identified in Response 4b-12. As the worst-case spill would be contained within the perimeter wall, no off-site impacts are anticipated (refer to Response 4b-11). Further, the sites would be paved, preventing spilled liquids from coming into contact with native soil. After a release, bulk liquids would be removed via trucks, and the pavement would be promptly cleaned, eliminating the risk of hydrocarbons coming into contact with soil. As such, there are no anticipated impacts to water quality.

Response 4b-121

The comment asks when the restored marsh areas would be considered mature, and until such time what measures would be implemented to minimize erosion from the newly-restored areas into the Steamshovel Slough. The comment recommends implementation of a water quality monitoring program.

Refer to Responses 4b-90, 4b-91, and 4b-115. Specifically, Response 4b-115 provides that a water quality monitoring program would be implemented during and after breaching of the existing berm and introduction of tidal flows into the northern portion of the Synergy Oil Field site. This program would likely be focused on suspended sediment concentrations, but would also include contaminants that could be present on the site, including heavy metals and oil-related contaminants. The water quality monitoring program would include preconstruction monitoring/sampling within Steamshovel Slough for comparison. The restored marsh areas would become fully established over a 5-year timeframe.

Response 4b-122

The comment refers to CCC's Sea Level Rise Policy Guidance, which recommends that projects consider anticipated sea level rise over the life of the project. For long term projects, the Guidance recommends considering at a minimum projected levels of sea level rise out to 2100. The comment notes that the sea level rise analysis uses a 2060 endpoint.

Prior to finalizing the project's sea level rise analysis included as Draft EIR Appendix G3, Updated Sea Level Rise Impact Analyses, the project proponent and its consultant, Moffat & Nichol, met with CCC staff to review the draft sea level rise analysis. The final sea level rise impact analysis in Appendix G3 reflects the input received from CCC staff. Habitat evolution analyses were performed for the following six sea level rise (SLR) conditions: 1, 2, 3, 4, 5, and 5.5 feet. The 5.5 feet SLR is the upper end of the SLR projection in Year 2100 according to CCC's SLR 2015 Guidance.

Flood modeling was performed through 2.6 feet of SLR or 2060. Although this is short of the recommended time frame, the modeling results showed that the project would decrease flood risk to the surrounding areas when compared to existing conditions. Even with SLR through 2100 (5.5 feet), the project would provide more flood protection than under existing conditions.

Response 4b-123

The comment asks whether the top of the sheetpile wall is also at 9-foot NGVD29.

Yes, the top of the sheetpile wall is 9-foot NGVD29.

Response 4b-124

The comment asks how sea level rise would impact the proposed wetlands restoration, and whether the increase in tidal prism coupled with sea level rise and storm events result in flooding other locations surrounding or downstream of the Synergy Oil Field site.

With sea level rise, the vegetated marsh area would generally decrease as some marsh habitats would convert to mudflat or subtidal due to the increased inundation frequency. Overall, the salt marsh habitat would evolve from a diverse range of habitats to be more subtidal and mudflat after sea level rises.

The increase in tidal prism related to the proposed restoration coupled with sea level rise and storm events would not result in increased flooding in other locations surrounding or downstream of the project site as compared to existing conditions. The area that would be restored does not currently provide storm retention, so when the site is breached, the increase in tidal prism would not decrease storage. This means the additional tidal prism that would result from restoration would not increase flood risk. The restored marsh would also provide wave dissipation, which would reduce flood risk. Additionally, the project includes perimeter dikes and a sheetpile wall to prevent flooding onto adjacent properties. The berm and sheetpile wall included in the proposed Phase I project would prevent flooding of 2nd Street and Phase II project area under the 50-year storm events with the upper end of SLR in Year 2060. This would be a decrease in flood risk compared to existing conditions.

Response 4b-125

The comment requests that a more detailed discussion of the impacts related to sea level rise and flooding on all four project sites be provided. The comment asks under what conditions would the various sites experience flooding and whether the model looked at the combined effects of sea level rise and a major flooding event. The comment asks what the results were and if there is an increase in flood risk in any of the surrounding areas.

In response, the Applicant's consultant on sea level rise analysis has prepared the following table, which summarizes the conditions under which each site may experience flooding.

Site	Conditions that the Site Would Experience with Flooding
Synergy Oil Field Site	The site would be flooded when the water level becomes higher than the top of the berm at +9.0 feet. With a 4.7 feet or more of SLR, the berm may be overtopped and the site may be flooded. Adaptive management can be applied to raise the berm at that time.
Pumpkin Patch Site	The potential flood source for this site is the San Gabriel River. The site is protected by the San Gabriel River Levee. The top of the levee elevation is +14.4 feet NGVD29, and the site is very high with elevation varying from +13.5 to +15.5 feet NGVD29. The site would only be flooded if the levee is overtopped. This event would not be related to proposed wetlands restoration because it is physically disconnected and located at a considerable distance from the Synergy Oil Field site. Overtopping of the San Gabriel River levee would require a flood event that is beyond the design event.
LCWA Site	This site is surrounded by East 2nd Street, Studebaker Road, and the San Gabriel Levee. It would not be flooded until those streets or the Levee is overtopped. This site is also not affected by the proposed wetlands because it is physically disconnected and located at a distance from the Synergy Oil Field site wetlands restoration area. Therefore, any flooding of this site, however remote, would not be related to proposed restoration.
City Property Site	This site is located in east side of Studebaker Road, north of East 2nd Street, and west of the San Gabriel Levee. The lowest spot elevation of Studebaker Road is +9.5 feet NGVD29. The site would not be flooded until Studebaker Road is overtopped with a SLR of 5.0 feet or more, or if the San Gabriel River Levee were overtopped. Overtopping of the San Gabriel River Levee would require a flood event that is beyond the design event. This site is also not affected by the proposed wetlands restoration because it is physically disconnected from the Synergy Oil Field site, and this event would not be related to proposed restoration.

In terms of flood impacts, the following three scenarios were modeled and assessed:

1. The lower bound of SLR projection of 0.5 foot in Year 2060,
2. The upper bound of SLR projection of 2.6 feet in Year 2060, and
3. The upper bound of SLR projection of 2.6 feet in Year 2060 together with a 50-year fluvial storm in Los Cerritos Channel (classified by the County of Los Angeles as equivalent to the 100-year flood event).

Scenario 3 looked at the combined effect of SLR and a major storm event. The results of this analysis are provided in Draft EIR Appendix G3, Updated Sea Level Rise Impact Analyses. The model results indicate the proposed project would decrease the flood risk in the surrounding areas.

Response 4b-126

The comment asks what type of event would result in overtopping the San Gabriel River levee. The comment also asks if the Pumpkin Patch or LCWA site were flooded, what are the potential impacts to water quality and exposure to hazards.

The levees were designed and installed by USACE to protect adjacent areas from flooding beyond the 100-year flood. As such, it would take an extraordinary event that is incredibly rare to affect adjacent land with flooding. The project is not exposed to any greater hazard from flooding than other development that exists both upstream and downstream of this reach of the river. Additionally, the project would not increase the risk of an overtopping event. Overtopping of the levees would expose development to water that is likely to be compromised in water quality because of contributions from the watershed rather than contributions from the oil field.

Response 4b-127

The comment asks whether the County's actions to become Tsunami Ready are anticipated to be in place before project construction commences.

Whether the County becomes or put in place actions to implements the Tsunami Ready program are not relevant to the proposed project. The proposed project would not change or affect the tsunami vulnerability for the area. Tsunamis in this area are very rare, and the trans-ocean tsunamis (from the distance) are on the order of 2.5 feet.

Response 4b-128

The comment notes that although tsunami inundation is not likely, it is possible given the project's location within the tsunami zone and asks for a discussion of potential impacts on the project from a tsunami.

The proposed project would not change or affect the tsunami vulnerability for the area. Similar to the issue of potential flood impacts, the proposed project components of a perimeter berm and sheetpile wall would prevent the potential flooding of 2nd Street and the southern half of the Synergy Oil Field site from tsunami impacts. The project would decrease the risk of flooding due to a tsunami compared to existing conditions.

Response 4b-129

The comment suggests that the City consider including a comprehensive groundwater monitoring program.

As identified in Response 4b-92, the project's injection wells are classified as Class II wells by USEPA, and are heavily regulated by DOGGR under the UIC program. Operators are required to obtain a permit through DOGGR prior to initiating injection. Injection permits include many conditions, such as approved injection zones, allowable injection pressures, and testing requirements. All Class II wells are monitored by DOGGR engineers to ensure the wells are operated properly and maintain mechanical integrity. Additionally, DOGGR engineers typically inspect most well sites annually. Samples of the injected fluids may be taken at any time to confirm compliance. As inspection and monitoring are requirements under the UIC program, no additional

monitoring requirements are needed. Further, the Draft EIR includes Mitigation Measure “HAZ-2: Soil, Landfill Materials, and Groundwater Management Plan,” which would reduce potential impacts to groundwater to less than significant.

Response 4b-130

The comment states that Wetlands Policy 2 of the SEADIP requires that restoration of the Synergy Oil Field site be conducted at one time. The comment acknowledges that the project proposes a phased approach to restoration, and suggests that one approach would be for the City to require restoration to the southern portion of the Synergy Oil Field site at the end of the 40-year period during which the remaining oil wells would be removed.

As background, Wetlands Policy 2 was adopted in connection with the City’s adoption of SEADIP, which proposed much more-intensive use of the surrounding areas than is proposed by the project. When Policy 2 was adopted, restoration of the wetlands was to be done at the expense of the developers of Areas 11a, 25, and 26. Those areas were proposed for residential development of approximately 764 units in stacked flats and townhome configuration (Subarea 11a); business park, restaurants, and a hotel (Subarea 25); and business park, office commercial, and light industrial (Subarea 26). Those developments were never implemented to fund restoration of the wetlands. As the proposed project contemplates a very different level of development, and proposes greater areas of open space and wetlands restoration, the phasing of wetlands restoration would occur in a manner that is more reflective of the current proposed nature of development as compared to the more-intensive development envisioned under SEADIP.

The proposed project only proposes restoration of the northern approximately 76.5-acre portion of the Synergy Oil Field site so that the oil operations on the southern portion of the site can help fund the restoration and long term maintenance costs of the restored wetlands. Because there is no source of funding for the wetlands restoration activities that are proposed, other than the revenues from oil production, and because there are no ongoing oil operations on the northern portion of the Synergy Oil Field site, restoration would occur in a phased manner as described in the proposed Project Description. As wells on the southern portion of the site are removed, the area would be revegetated. As described on Draft EIR p. 2-65, the Applicant intends to record an offer of dedication to the southern portion of the Synergy Oil Field site to the LCWA site, which would allow LCWA, at such time it decides to accept the offer of dedication, to implement habitat restoration based upon the physical conditions present at that time.

Response 4b-131

The comment restates the development standards for Subarea 33 in the SEADIP, which requires restoration of the entire Subarea as wetlands. The comment asks whether it is feasible to include a least tern nesting site in the proposed wetlands restoration area.

The proposed wetland restoration plan covers 76.52 acres and provides for the restoration of wetlands to all areas that are not currently part of ongoing oil operations. Some portions of Subarea 33 are located within the southern portion of the Synergy Oil Field site that is not part of the current restoration plan as these areas are still being utilized for oil operations. Once the oil operations are phased out over the next 20 to 40 years, these areas would be revegetated. Within the current restoration plan, the long-term goal is to return the site to former coastal salt marsh. This area was not identified in any literature as a former least tern nesting habitat. In order for 2 acres of least tern nesting habitat to be established, grading within Steamshovel Slough would be

required to create permanent subtidal areas in connection with area above the tideline. Grading in the south is not proposed, as Steamshovel Slough is already recognized to be high functioning with established habitat and mudflat areas that fully drain during low tide. Also refer to Response 4b-130.

Response 4b-132

The comment cites SEADIP Policy 25k, which requires a 30-foot landscaped setback from the San Gabriel River for a trail.

The project site plan for the Pumpkin Patch site reflects a 30-foot setback on the San Gabriel River side of the site. There is a 5-foot-wide pedestrian easement along that edge, which is within the 30-foot setback.

Response 4b-133

The comment states that the opinion of the commenter that analysis of potential impacts from pile driving of the sheet pile wall to sensitive species, including aquatic species, has not been provided in the Draft EIR, and requests information to be provided as well as whether impacts to aquatic species could result if underwater noise levels reach certain thresholds identified by NOAA.

Refer to Response 4b-45.

Response 4b-134

The comment asks whether the noise analysis took into consideration the combined noise levels from construction and operation.

The highest noise levels would be generated by construction before the sound walls are built around the Pumpkin Patch and LCWA sites. The sound walls would be constructed and completed on both sites by Year 2. During Year 1 on both sites, site clearing and grading work would be undertaken. The majority of construction activities on the Synergy Oil Field site would occur during Year 1 when grading for the wetlands restoration area would be conducted. Once the sound walls are constructed on the Pumpkin Patch and LCWA sites, the noise levels would be substantially reduced. Operations on the Pumpkin Patch and LCWA sites would not commence until Year 4, by which time construction activities on the Synergy Oil Field and City Property sites would be completed. Refer to Draft EIR Table 2-2, Synergy Oil Field Site Activities; Table 2-3, City Property Site Activities; Table 2-4, Pumpkin Patch Site Activities; and Table 2-5, Los Cerritos Wetlands Authority (LCWA) Site Activities. Because of the timing of sound wall construction in relationship to operations, the analysis determined that there was minimal potential for significant noise impacts to occur as a result of an overlap of construction and operational noise and was not assessed.

Response 4b-135

The comment asks what the expected operational noise levels would be at the proposed visitors center and along the proposed Studebaker Trail.

By the time the Visitors Center and the Studebaker Trail are completed and open for use by the public, there would be no significant noise sources remaining on the Synergy Oil Field site. The construction activities that would generate the most noise would be completed before the Visitors Center and Studebaker Trail are completed. Refer to Draft EIR Table 2-2, Synergy Oil Field Site Activities. Once those public access amenities are open for public use, the main source of noise would be from the traffic noise from the arterial roadways,

which is part of the existing background environment. The noise levels at the Visitors Center and proposed trail would be very low, and operational noise from the Pumpkin Patch and LCWA sites are not expected to be audible as the perimeter walls surrounding both sites would serve to reduce noise impacts from oil operations. The visitors center and trail would be managed by the LCWA. The LCWA would establish hours of operation, and as stated above, once those public access amenities are open for public use, the main source of noise would be from the traffic noise from the arterial roadways, which is part of the existing background environment.

Response 4b-136

The comment asks whether the project would have any impacts on coastal recreation and public access.

The impacts of the project on recreation were addressed in Draft EIR Section 3.14, *Recreation*. The project is anticipated to have a beneficial impact on coastal recreation and public access by providing new public access amenities in the form of a new Studebaker Trail and Visitors Center to provide greater access to the restored wetlands. Currently, there is no public access to any of the four sites. In addition, the project proposes the construction of new bikeways along the streets fronting the four properties that comprise the project site.

Response 4b-137

The comment asks when the Visitors Center and Studebaker Trail be available to the public, and that if it would not be available until oil operations cease on the southern portion of the Synergy Oil Field site, this should be disclosed.

The Visitors Center and Studebaker Trail are expected to be available to the public sometime in Year 4 (refer to Draft EIR pp. 2-39 and 2-41). The timing of these public access improvements is dependent upon the construction of the new office building and warehouse on the Pumpkin Patch site. Those buildings would be constructed during Year 3 (refer to Draft EIR p. 2-54). Once those buildings are constructed, Synergy would move its office operations from the Bixby Ranch Field Office building on the Synergy Oil Field site to the new office building on the Pumpkin Patch site. Once the office uses have been relocated, the project would then move the Bixby Ranch Field Office building to its new location and complete the improvements to convert the structure for visitor serving uses. As described on Draft EIR p. 2-41, the Studebaker Trail would not be open to the public until the oil operations (e.g., the use of the office building) are relocated to the Pumpkin Patch site.

Response 4b-138

The comment thanks the City for the opportunity to review the Draft EIR and expresses appreciation for the outreach, updates and other regular communications.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 4b-139

This is a memorandum from Dr. Jonna Engel to Kate Huckelbridge. Dr. Engel is CCC's senior ecologist. The comment lists the studies reviewed by Dr. Engel in preparing her memorandum, and summarizes a meeting on May 5, 2017, with other CCC staff and the project Applicant to visit each of the sites that comprise the project site to observe and assess on-the-ground biological conditions at each site. The comment states that the conclusions in the memorandum are meant as "guidance to CCC staff and have not been vetted by the CCC

itself. A final determination on ESHA and wetland impacts would not be made until the matter is brought before CCC for a decision.”

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. It should be noted that the Biological Technical Report, dated February 3, 2017, that was cited in the memorandum is the draft version that was provided internally to the City and subsequently reviewed by CCC staff; the Biological Technical Report appended to the Draft EIR is dated June 22, 2017.

Response 4b-140

The comment describes the Pumpkin Patch site and the physical characteristics of the site, as well as the current use of the site on a seasonal basis for the sale of pumpkins and Christmas trees.

No response to this comment is required. The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 4b-141

The comment presents a summary of survey results for the wetland delineation, focused botanical surveys, and burrowing owl surveys.

The comment does not raise a substantive issue on the content of the Draft EIR. No response is required. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 4b-142

The comment describes Dr. Engel’s observations of the upper area of the Pumpkin Patch site, which was described as a “degraded flat area that consisted primarily of compacted bare dirt with scattered patches of non-native weeds save for an oval shaped depression at the south-east corner of the site” The memorandum summarizes information from a May 2005 EIP memorandum to the City and the vegetation observed there. The memorandum also describes the wet season fairy shrimp surveys conducted by Applicant’s biologist, GLA, in this area between 2011 and 2017. The comment concludes with information from the GLA report regarding whether ponding for 14 days was or was not observed, and the comment concludes that “fourteen days of ponding is also considered primary evidence of hydrology.”

Refer to Response 4b-53. Draft EIR Appendix C1, Biological Technical Report and Jurisdictional Delineation, did not identify the depression as a wetland due to the lack of any of the three criteria for wetlands (wetland hydrology, hydric soils, or hydrophytic vegetation); however, the Biological Technical Report at p. 56 stated that “should the Coastal Commission assert otherwise, the acreage associated with the seasonal depressions totals 0.03 [acres].” It should be noted that Dr. Engel’s site visit occurred in May 2017 after the abnormally wet season, and areas supporting hydrophytic vegetation and hydrology indicators, such as saturation, salt crust, and/or surface soil cracks, were visible within the seasonal depressions. With respect to the comment that aquatic invertebrates and fourteen days of ponding are primary indicators of hydrology, it should be noted that these indicators have not been present in 50 percent of years, which is the threshold recognized by USACE for this indicator.

Response 4b-143

The comment summarizes the conclusions of Dr. Engel that based upon the review of biology report, the review of aerial images and site visit observation, the “artificial seasonal wetland” identified on the May 24, 2005, EIP memo is a wetland because it meets the criteria for wetland hydrology and, therefore, meets CCC’s one-parameter criterion for an area being a wetland.

As noted in Response 4b-142, the conclusion differs from the conclusions of Draft EIR Appendix C1, Biological Technical Report and Jurisdictional Delineation, which calculated the “seasonal depression” area as a 0.03-acre area as shown on Biological Technical Report Exhibit 5E, Pumpkin Patch Site – CCC Jurisdictional Delineation Impact Map. Also refer to Response 4b-53.

Response 4b-144

The comment states that GLA identified southern tarplant on the Pumpkin Patch site and that Dr. Engel also observed scattered patches and lists the factors taken into consideration by CCC staff in determining whether a rare plant is an ESHA.

No response to this comment is required. The comment does not raise a substantive issue on the content of the Draft EIR. Information regarding the southern tarplant was provided on Draft EIR p. 3.3-20. The comment will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 4b-145

The comment summarizes the observations of Dr. Engel, and her conclusion that concurs with GLA’s determination that the southern tarplant population on the Pumpkin Patch site does not rise to the level of ESHA.

The comment is consistent with the conclusions on Draft EIR p. 3.3-85. No further response is required.

Response 4b-146

The comment provides a description of existing conditions on the City Property site is provided.

The description is consistent with the description of the City Property site on Draft EIR p. 3.3-12. No further response is required. The comment will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 4b-147

The comment provides a description of southern tarplant observations on the City Property site.

Information regarding the southern tarplant on the City Property site was included on Draft EIR p. 3.3-20. The potential for the southern tarplant to be considered ESHA was addressed on Draft EIR p. 3.3-84. It is understood that a final determination on ESHA would be made by CCC in connection with consideration of the consolidated Coastal Development Permit.

Response 4b-148

The comment references a pipeline alignment on the City Property site that avoids all direct impact to wetland habitat, but as a map had not been provided during the site visit, a conclusion regarding potential impacts to native habitat and wetlands could not be made.

This alignment is Draft EIR Alternative 5, and as stated on Draft EIR p. 5-58, this alternative would avoid all direct impact to wetland habitat.

Response 4b-149

The comment describes the existing conditions on the LCWA site, and states that no ESHA or wetlands is present.

The comment is consistent with the conclusions on Draft EIR pp. 3.3-74 and 3.3-78. No further response is required.

Response 4b-150

The comment describes the existing conditions on the Synergy Oil Field site.

The comment is consistent with the discussion of the wetland habitats on the Synergy Oil Field site beginning on Draft EIR p. 3.3-37. No further response is required.

Response 4b-151

The comment summarizes the description of wetland and terrestrial resources identified in reports prepared by GLA, the Applicant's biologist. It should be noted that the Biological Technical Report referenced by Dr. Engel was included in the Draft EIR as Appendix C1 and was updated as of June 22, 2017; however, no changes to the description of estuary sea blight and southern tarplant were made between the June 2017 report included in the Draft EIR and the February 2017 report referenced by the comment. The comment also concludes that the population of southern tarplant on the Synergy Oil Field site would be considered ESHA.

The comment is consistent with the information in the Biological Technical Report, included as Draft EIR Appendix C1, and the information regarding the southern tarplant on Draft EIR p. 3.3-82. No further response is required.

Response 4b-152

The comment summarizes the goals for the Synergy Oil Field site with respect to restoration of the site to native wetland and upland habitat and describes the proposed phasing.

The comment is consistent with Draft EIR Chapter 2, *Project Description*. No further response is required.

Response 4b-153

The comment describes the proposed Phase 1 restoration work.

The comment is consistent with Draft EIR Chapter 2, *Project Description*. No further response is required.

Response 4b-154

The comment summarizes Coastal Act Section 30233 as the policy that identifies the allowed uses and protection for wetlands and Section 30240 as the policy that identifies the allowed uses and protection of ESHA, and the type and amount of mitigation, which is to be determined on a case-by-case basis.

The comment identifies the two Coastal Act sections concerning the protection of wetlands and ESHAs. The City recognizes that CCC may, through its separate permitting process under the Coastal Act, impose mitigation at a different ratio than the City. The City believes that the mitigation it has identified in the Draft EIR addresses potentially significant impacts to biological resources to less than significant even if they may differ from the mitigation that CCC may consider.

9.2.2 Local Agencies

Comment letters received from local agencies and the Lead Agency's responses to those comments are included on the following pages.

9.2.2.1 County Sanitation Districts of Los Angeles County (CSD), August 22, 2017

Comment Letters 5a and 5b

Comment Letter 5a



1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411 / FAX: (562) 699-5422
www.lacsd.org

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

GRACE ROBINSON HYDE
Chief Engineer and General Manager

August 22, 2017

Ref. Doc. No.: 4225424

Mr. Craig Chalfant, Senior Planner
Development Services Department
City of Long Beach
333 West Ocean Boulevard, 5th Floor
Long Beach, CA 90802

Dear Mr. Chalfant:

DEIR Response to Los Cerritos Wetlands Oil Consolidation and Restoration Project

The Sanitation Districts of Los Angeles County (Districts) received a Draft Environmental Impact Report (DEIR) for the subject project on July 24, 2017. The majority of the proposed project site is located within the jurisdictional boundary of District No. 3. Previous comments submitted by the Districts in correspondence dated May 10, 2016 (copy enclosed) still apply to the subject project with the following additional comments and updated information:

1. **ES.6.1.4 LCWA Site, page ES-10, LCWA Site paragraph** – The LCWA Site is outside the jurisdictional boundaries of the Districts and will require annexation into District No. 3 before sewerage service can be provided to the proposed development. For a copy of the Districts' Annexation Information and Processing Fee sheets, go to www.lacsd.org, Wastewater & Sewer Systems, Will Serve Program, and click on the appropriate link. For more specific information regarding the annexation procedure and fees, please contact Ms. Donna Curry at (562) 908-4288, extension 2708. 5a-1
2. **Section 3.8.4.4 Cumulative Impacts, page 3.8-33, Groundwater Supplies and Recharge paragraph** – The proposed project would involve the drilling of new oil production and produced-water injection wells among other activities. The Districts maintain sewerage facilities within the project area that may be affected by the proposed project. Approval to construct improvements within a Districts' sewer easement and/or over or near a Districts' sewer is required before construction may begin. For a copy of the Districts' buildover procedures and requirements go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and click on the Buildover Procedures and Requirements link. For more specific information regarding the buildover procedure, please contact Mr. Ed Stewart at (562) 908-4288, extension 2766. 5a-2
3. **Table 3.9-1 Consistency Analysis with Local Land Use Plans, page 3.9-30, Policy 16.** – The Consistency Analysis for this Policy states a "relocated easement would be provided for the Synergy Oil Field site to connect the relocated visitors center to the sanitary sewer". Opting to discharge directly to a Districts' trunk sewer may require either a Trunk Sewer Connection Permit, issued by the Districts, or submittal of Sewer Plans for review and approval by the Districts. For additional information, please contact the Districts' Engineering Counter at (562) 908-4288, extension 1205. 5a-3

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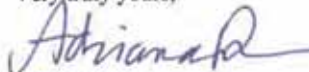
Mr. Craig Chalfant

-2-

August 22, 2017

4. **Section 3.17.2.2 Wastewater, page 3.17-2, Wastewater paragraph one.** – The paragraph mentions LACSD as the provider of wastewater services for the project area, which includes accepting produced water from oil extraction on the Synergy Oil Field and City Property Sites. Development of the proposed project, which consists in part of 120 new oil wells, may require an amendment to a Districts' permit for Industrial Wastewater Discharge. Project developers should contact the Districts' Industrial Waste Section at (562) 908-4288, extension 2900, in order to reach a determination on this matter. If this update is necessary, project developers will be required to forward copies of final plans and supporting information for the proposed project to the Districts for review and approval before beginning project construction. 5a-4
 5. **Section 3.17.2.2 Wastewater, page 3.17-2, Wastewater paragraph one.** – LACSD serves approximately 5.6 million people in Los Angeles County, including the City. Revise accordingly throughout the document. 5a-5
 6. **Section 3.17.2.2 Wastewater, page 3.17-2, Wastewater paragraph two.** – The information states "LBWRP is expected to reach full capacity sometime during the next 25 years (at least by 2040). According to the Clearwater Program Mater Facilities Plan (<http://www.clearwaterprogram.org/civicax/filebank/blobload.aspx?blobid=7730>), the 2050 Projected Tributary Flow for JOS Treatment Plants found in Table 4-9 lists LBWRP with a project flow of 23 million gallons per day in 2050. 5a-6
 7. **Section 3.17.3.4 Local, page 3.17-6, Los Angeles County Sanitation District paragraph two.** – The estimated wastewater generation factors used in determining connection fees in LACSD's member districts are set forth in the Connection Fee Ordinance for each respective district available on LACSD's website as indicated in the information, however, in determining the impact to the Sewerage System and applicable connection fees, the Districts' Chief Engineer and General Manager will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel or facilities on the parcel. 5a-7
 8. **Section 3.17.4.3 Impact Evaluation, page 3.17-10, paragraph two from the top** – Although it is noted that 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, project developers should contact the Districts' Industrial Waste Section in order to determine if development of the project will require an amendment to a Districts' permit for Industrial Wastewater Discharge. Refer to item no. 4 of this letter for additional information. 5a-8
 9. **Initial Study 4.17 Utilities and Service Systems, page 65, response to item a)** – Wastewater generated by the proposed project will be treated only at the Joint Water Pollution Control Plant. 5a-9
- If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,



Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar
Enclosure
cc: D. Curry
E. Stewart
L. Shadler
M. Sullivan
M. Tatalovich

DOC: #4255330.D0399

Comment Letter 5b



COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON HYDE
Chief Engineer and General Manager

May 10, 2016

Ref File No.: 3713478

Mr. Craig Chalfant, Planner
City of Long Beach
333 West Ocean Boulevard, 5th Floor
Long Beach, CA 90802

Dear Mr. Chalfant:

Comment Letter for Los Cerritos Wetlands Restoration and Oil Consolidation Project

The County Sanitation Districts of Los Angeles County (Districts) received a Draft Environmental Impact Report for the subject project on April 29, 2016. The majority of the proposed project area is located within the jurisdictional boundaries of District No. 3. We offer the following comments regarding sewerage service:

1. The proposed project may impact existing and/or proposed Districts' trunk sewers over which it will be constructed. Existing and proposed Districts' trunk sewers are located directly under and/or cross directly beneath the proposed project alignment. The Districts cannot issue a detailed response to or permit construction of the proposed project until project plans and specifications that incorporate Districts' sewer lines are submitted. In order to prepare these plans, you will need to submit a map of the proposed project alignment, when available, to the attention of Mr. Michael Tatalovich of the Districts' Sewer Design Section at the address shown above. The Districts will then provide you with the plans for all Districts' facilities that will be impacted by the proposed project. Then, when revised plans that incorporate our sewers have been prepared, please submit copies of the same for our review and comment. 5b-1
2. Availability of sewer capacity depends upon project size and timing of connection to the sewerage system. Because there are other proposed developments in the area, the availability of trunk sewer capacity should be verified as the project advances. Please submit a copy of the project's build-out schedule to the undersigned to ensure the project is considered when planning future sewerage system relief and replacement projects. 5b-2

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

cc: M. Tatalovich

DOC: #3718415.D03

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Responses to Comment Letters 5a and 5b

Response 5a-1

The comment states that the Sanitation Districts of Los Angeles County (Districts) received the Draft EIR and that the majority of the project site is within the jurisdictional boundary of District No. 3. The comment also states that the previous comments submitted on May 10, 2016 as a part of the scoping process still apply to the project. The comment further states that the LCWA site is outside of the Districts' jurisdictional boundaries and would have to be annexed into District No. 3 before sewer service can be provided to the project.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, as explained in Draft EIR Section 3.17.2.2, Wastewater, the area, including the LCWA site, is served by the Long Beach Water Department (LBWD), which is responsible for operating and maintaining the sanitary sewer lines in the City. Through these sanitary sewer lines, the Long Beach Water District (LBWD) delivers wastewater to two of the District's facilities. The contractual relationship is between the City and the Districts.

The previous comments, submitted on May 10, 2016, are addressed under Responses 5b-1 and 5b-2.

Response 5a-2

The comment states that the Districts maintain sewerage facilities within the project area that may be affected by the project. As such, the construction of new oil production and produced-water injection wells over or near District sewerage facilities or sewerage easements would require compliance with the District's Buildover Procedures and Requirements and approval prior to construction.

Sewer lines within the City are managed by the LBWD and well construction near sewer lines would be required to comply with the LBWD requirements, which are similar to those of the District. The District did not provide a map identifying the potential trunk sewers that the comment asserts are under the project footprint. A review of the District website did not identify maps with trunk lines that cross the four sites. The website for the Long Beach Water Department specifically states that "In February 1988, the Department assumed the responsibility of the various functions of the City's sanitary sewer system, including operations and maintenance" (see <http://www.lbwater.org/sanitary-sewers>).

Response 5a-3

The comment quotes text from Draft EIR Table 3.9-1, Consistency Analysis with Local Land Use Plans, p. 3.9-20, which states that the relocated visitors center would need a permit to connect to the sanitary sewer. The comment further states that connecting the relocated visitors center to the sanitary sewer may require either a Trunk Sewer Connection Permit or a submittal of Sewer Plans for review and approval by the Districts.

The Synergy Oil Field site, including the visitors center, is currently connected to the sewer. As noted in the responses above, the sewer connections in the project area, including the connection to the visitors center, are under the jurisdiction of the LBWD, which has similar requirements for connection.

Response 5a-4

The comment notes that the Draft EIR mentions the Districts as the provider of wastewater services for the project area. The comment states that the proposed project may require an amendment to the Districts' Industrial Wastewater Discharge permit. This permit is currently with the LBWD.

As explained in Impact UT-2b of the Draft EIR, the industrial wastewater would be injected back into the oil production zones, not to the sewer system. The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 5a-5

The comment stated that the Districts wastewater system has increased from approximately 5.5 million people to 5.6 million and requests this revision be made throughout the Draft EIR.

The text in the Draft EIR Section 3.17.2.2, Wastewater, p. 3.17-2, will be updated as follows and included in Chapter 10, *Draft EIR Revisions*:

... LACSD is a public agency created under State law to manage wastewater and solid waste on a regional scale and consists of 24 independent special districts serving approximately ~~5.5~~5.6 million people in Los Angeles County, including the City.

Response 5a-6

The comment provides an updated timeline for the LBWRP to reach full capacity.

The text in Section 3.17.2.2, Draft EIR p. 3.17-2, will be updated as follows and included in Chapter 10, *Draft EIR Revisions*:

... The LBWRP is expected to reach full capacity sometime during the next 25 years (at least by ~~2040~~2050) ...

Response 5a-7

The comment provides additional information on determining impacts to the sewerage system and connection fees.

The last paragraph in the subsection on the Los Angeles County Sanitation District in Section 3.17.3.4, Draft EIR p. 3.17-6, will have the following text added and included in Chapter 10, *Draft EIR Revisions*.

... Most of the City, including the project area, is in District 3 of the LACSD (LACSD 2017a). In determining the impact to the Sewerage System and applicable connection fees, the Districts' Chief Engineer and General Manager will determine the use category (e.g., condominium, single-family home, etc.) that best represents the actual or anticipated use of the parcel or facilities on the parcel.

Response 5a-8

The comment states that although the nature of the wastewater being discharged to the sanitary sewer would remain unchanged, the project developers should still contact the regulatory agency to determine if a change to the Industrial Wastewater Discharge permit would need an amendment.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, Draft EIR Impact UT-2b explains that the industrial wastewater would be injected back into the oil production zones, not to the sewer system. This would result in a large reduction in the volume discharged to the sewer system and would result in a request to amend or possibly cancel the permit.

Response 5a-9

Referring to the treatment facility options stated on Initial Study, Section 4.17, *Utilities and Services Systems*, p. 65, the comment states that wastewater generated by the proposed project would only be treated at the Joint Water Pollution Control Plant.

The text on Initial Study p. 65 in Appendix A will be revised as follows and included in Chapter 10, *Draft EIR Revisions*:

Potentially Significant Impact. Wastewater service is provided by the Long Beach Water Department, which operates and maintains approximately 765 miles of sanitary sewer lines and delivers over 40 million gallons per day to the Los Angeles County Sanitation Districts facilities. Wastewater generated by the proposed project would be delivered to the Joint Water Pollution Control Plant (JWPCP) of the Los Angeles County Sanitation District ~~or to the Long Beach Water Reclamation Plan of the Los Angeles County Sanitation Districts (LBWRP)~~ (City of Long Beach, 2016).

Response 5b-1

The comment letter is a copy of previous comments submitted on May 10, 2016, as a part of the scoping process. Similar to Comment 5a-2, the comment states that the proposed project may impact existing and/or proposed Districts' trunk sewers in the project area and that trunk sewers are located directly under and/or cross directly beneath the project alignment. As such, construction of the proposed project is not permitted until project plans and specifications are submitted to the Districts.

Refer to Response 5a-2.

Response 5b-2

The comment states that availability of sewer capacity depends on the project size and timing of the connection to the sewerage system. This should be verified in advance, due to the other proposed developments in the project area.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. In addition, and as explained in Draft EIR Impact UT-1, the volume of wastewater that would be provided to the sanitary sewer system would be greatly reduced due to the use of wastewater injection wells.

9.2.2.2 Los Angeles County Fire Department, August 31, 2017

Comment Letter 6

Comment Letter 6



COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

August 31, 2017

Craig Chalfant, Analyst
City of Long Beach
Department of Development Services
333 West Ocean Boulevard
Long Beach, CA 90802

Dear Mr. Chalfant:

NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT, "LOS CERRITOS WETLANDS OIL CONSOLIDATION AND RESTORATION PROJECT," THE PROPOSED PROJECT WOULD CONSOLIDATE EXISTING OIL OPERATIONS AND IMPLEMENT A WETLANDS HABITAT RESTORATION PROJECT THAT WOULD PROVIDE NEW PUBLIC ACCESS OPPORTUNITIES TO THIS PORTION OF LOS CERRITOS WETLANDS, IT WOULD OCCUR ON THE FOUR INDIVIDUAL SITES, WHICH TOGETHER COMPRISE THE PROJECT, LONG BEACH, FFER 201700087

The Notice of Availability of a Draft Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department.

6-1

The following are their comments:

PLANNING DIVISION:

The subject property is entirely within the City of Long Beach which is not a part of the emergency response area of the Los Angeles County Fire Department (also known as the Consolidated Fire Protection District of Los Angeles County). Therefore, this project does not appear to have any impact on the emergency responsibilities of this department.

6-2

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS	BRAEBURY	CUDAHY	HAWTHORNE	LA HABRA	LYNWOOD	PICO RIVERA	SIGNAL HILL
ARTESIA	CALABASAS	DIAMOND BAR	HIDDEN HILLS	LA MIRADA	MALIBU	POMONA	SOUTH EL MONTE
AZUSA	CARSON	DUARTE	HUNTINGTON PARK	LA PUENTE	MAYWOOD	RANCHO PALOS VERDES	SOUTH GATE
BALDWIN PARK	CERRITOS	EL MONTE	INDUSTRY	LAKEWOOD	NORWALK	ROLLING HILLS	TEMPLE CITY
BELL	CLAREMONT	GARDENA	INGLEWOOD	LANCASTER	PALMDALE	ROLLING HILLS ESTATES	WALNUT
BELL GARDENS	COMMERCE	GLENDALE	IRVINDALE	LAWDALE	PALOS VERDES ESTATES	ROSEMEAD	WEST HOLLYWOOD
BELLFLOWER	COVINA	HAWAIIAN GARDENS	LA CANADA-FLINTRIDGE	LOMITA	PARAMOUNT	SAN DIMAS	WESTLAKE VILLAGE
						SANTA CLARITA	WHITTIER

Craig Chalfant, Analyst
August 31, 2017
Page 2

LAND DEVELOPMENT UNIT:

This project is located entirely in the City of Long Beach. Therefore, the City of Long Beach Fire Department has jurisdiction concerning this project and will be setting conditions. This project is located in close proximity to the jurisdictional area of the Los Angeles County Fire Department. However, this project is unlikely to have an impact that necessitates a comment concerning general requirements from the Land Development Unit of the Los Angeles County Fire Department.

6-3

The County of Los Angeles Fire Department's Land Development Unit appreciates the opportunity to comment on this project.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

The statutory responsibilities of the County of Los Angeles Fire Department's Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance.

6-4

The County of Los Angeles Fire Department's Forestry Division has no further comments regarding this project.

HEALTH HAZARDOUS MATERIALS DIVISION:

The Health Hazardous Materials Division (HHMD) of the Los Angeles County Fire Department has no jurisdiction in the City of Long Beach. Therefore, HHMD has no requirements for the project site.

6-5

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

MICHAEL Y. TAKESHITA, ACTING CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

MYT:ac

Responses to Comment Letter 6

Response 6-1

The comment states that several departments within the Los Angeles County Fire Department (LACFD) reviewed the NOA and Draft EIR.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 6-2

The comment states that the project site is entirely within the City of Long Beach, which is not a part of the emergency response area of the LACFD and, therefore, does not have any impact on the emergency responsibilities of LACFD.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, Draft EIR Section 3.13, *Public Services*, provides an analysis of the proposed project's impact on public services, including fire protection. As described therein, fire protection services and emergency medical services for the project would be provided by the Long Beach Fire Department (LBFD), particularly Stations 4, 8, 14, 17, and 22. In case of an emergency, all 23 fire stations in the City could be part of any emergency response. Additionally, LBFD has a mutual aid agreement with the Orange County Fire Authority (OCFA) to provide additional fire protection services when necessary. The Draft EIR does not list LACFD as a respondent for fire services or as having emergency responsibilities.

Response 6-3

The comment by the LACFD's Land Development Unit notes that even though the project site is in close proximity to LACFD jurisdiction, it is entirely within the City of Long Beach and, therefore, under the jurisdiction of LBFD and unlikely to have an impact that necessitates a comment concerning general requirements from the Land Development Unit.

Refer to Response 6-1. The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 6-4

The comment from LACFD's Forestry Division lists the statutory responsibilities of the department, including erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance, and had no further comments.

The comment states the statutory responsibilities of LACFD's Forestry Division and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 6-5

The comment from LACFD's Health Hazardous Materials Division notes that they have no jurisdiction over the City of Long Beach and, thus, has no requirements for the project site.

Refer to Response 6-1. The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.2.3 South Coast Air Quality Management District (SCAQMD), September 1, 2017

Comment Letters 7a and 7b

Comment Letter 7a

Subject: FW: SCAQMD Staff Comments for the Los Cerritos Wetlands Oil Consolidation and Restoration Project DEIR
Attachments: LAC170727-01 DEIR Los Cerritos Wetlands Restoration and Oil Consolidation Project.pdf

From: Gordon Mize (<mailto:gmize@aqmd.gov>)
Sent: Friday, September 01, 2017 7:50 AM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Subject: SCAQMD Staff Comments for the Los Cerritos Wetlands Oil Consolidation and Restoration Project DEIR

Mr. Craig Chalfant, CEQA Planner, Planning Bureau
City of Long Beach, Development Services Department

Dear Mr. Chalfant,

Attached are the SCAQMD staff comments for the Draft Environmental Impact Report (DEIR) for the proposed Los Cerritos Wetlands Oil Consolidation and Restoration Project (SCAQMD Control Number: LAC170727-01). The original, electronically signed letter will be forwarded to your attention by regular USPS mail. SCAQMD staff comments are meant as guidance for the Lead Agency and should be reviewed for incorporation into the Final EIR. Please contact me if you have any further questions regarding these comments.

Due to my imminent retirement, my last day at the SCAQMD is at the close of business, Friday, September 1, 2017. After September 1st, please contact Jack Cheng, Air Quality Specialist, directly at (909) 396-2448 or at jcheng@aqmd.gov, if you have any questions.

Gordon E. Mize
Air Quality Specialist
South Coast Air Quality Management District
CEQA, Inter-Governmental Review
(909) 396-3302 Phone
(909) 396-3324 Fax
gmize@aqmd.gov

7a-1

Comment Letter 7b



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL AND USPS:

craig.chalfant@longbeach.gov

Craig Chalfant, CEQA Planner, Planning Bureau

City of Long Beach, Development Services Department

333 West Ocean Boulevard, 5th Floor

Long Beach, CA, 90802

September 1, 2017

Draft Environmental Impact Report (Draft EIR) for the Proposed Los Cerritos Wetlands Restoration and Oil Consolidation Project (SCH No. 2016041083)

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIR.

7b-1

SCAQMD Staff's Summary of Project Description

The Lead Agency proposes to consolidate and relocate existing oil operations on four sites totaling 195 acres (Proposed Project). The existing oil operations at the 150-acre Synergy Oil Fields and the 33-acre City Property will continue and be phased out over a 40-year period¹. Up to 50 new oil wells will be constructed on the seven-acre Pumpkin Patch and the five-acre Los Cerritos Wetland Authority (LCWA) site². In addition, the LCWA site will include construction of up to four natural gas turbines with a heat recovery steam generator for cogeneration. The northern portion of the Synergy Oil Field will be restored to a natural wetland area with a 169-foot public access trail. Furthermore, the Proposed Project would include the construction of a 5,200-square-foot office and a 9,725-square-foot warehouse. It is anticipated that construction of the Proposed Project would begin in year 2018 with majority of the non-oil facilities constructed by year 2022, while drilling, plugging, and abandonment of oil wells would occur over a period of eight to 12 years. The Proposed Project is generally bordered by the Los Cerritos Channel to the north, beyond which are residential uses; the AES Power Plant site to the east; the San Gabriel River to the south and southwest, beyond which are undeveloped areas; and the commercial development and Alamitos Bay to the west³.

7b-2

SCAQMD Staff's Summary of Air Quality and Health Risk Assessment (HRA) Analyses

In the Air Quality Section, the Lead Agency quantified the Proposed Project's construction and operational emissions and compared those emissions to SCAQMD's regional and localized air quality CEQA significance thresholds. The Lead Agency found that the Proposed Project would cause significant and unavoidable regional air quality impacts for NOx emissions during construction even with mitigation measures, while the Proposed Project's localized construction activities and operation would result in less than significant impacts after mitigation⁴. Additionally, the Lead Agency performed a HRA and found that the mitigated Maximum Exposed Individual Resident would be 7.5 in one million⁵, which is below SCAQMD's CEQA significance threshold of 10 in one million for cancer risk.

7b-3

¹ Draft EIR, Section 2, Project Description, Page 2-6.

² *Ibid.*, Page 2-54.

³ *Ibid.*, Executive Summary, Page ES-3.

⁴ *Ibid.*, Chapter 3.2, Air Quality, Page 3.2-30 through 39.

⁵ *Ibid.*, Page 3.2-38.

Craig Chalfant

2

September 1, 2017

General Comments

On March 3, 2017, the SCAQMD's Governing Board adopted the 2016 Air Quality Management Plan (2016 AQMP), which was later approved by the California Air Resources Board of Directors on March 23rd. The 2016 AQMP⁶ is a regional blueprint for achieving air quality standards and healthful air in the South Coast Air Basin (Basin). Built upon the progress in implementing the 2007 and 2012 AQMPs, the 2016 AQMP provides a regional perspective on air quality and lays out the challenges facing the Basin. The most significant air quality challenge in the Basin is to achieve an additional 45 percent reduction in nitrogen oxide (NOx) emissions in 2023 and an additional 55 percent NOx reduction beyond 2031 levels for ozone attainment.

7b-4

SCAQMD staff has concerns about the air quality and health risk analyses in the Draft EIR, which have likely led to an under-estimation of the Proposed Project's impacts. First, impacts from overlapping construction and operation were not analyzed. Second, the HRA modeling performed for the Proposed Project utilized parameters which are not consistent with SCAQMD's recommended methodology. Details are included in the attachment. The Proposed Project plays a role in contributing to Basin-wide NOx emissions. As described above, achieving NOx emission reductions in a timely manner is critical to attaining the National Ambient Air Quality Standard (NAAQS) for ozone before the 2023 and 2031 deadlines. SCAQMD is committed to attaining the ozone NAAQS as expeditiously as practicable. To further reduce NOx emissions during construction, the attachment includes a discussion of recommended changes to the existing mitigation measures for air quality and a new mitigation measure which the Lead Agency should implement. Finally, since permits from SCAQMD would be required for implementing the Proposed Project, SCAQMD should be identified as a Responsible Agency in the Final EIR.

7b-5

7b-6

7b-7

7b-8

Pursuant to the California Public Resources Code Section 21092.5 and CEQA Guidelines Section 15088, the Lead Agency is required to provide SCAQMD staff with written proposed responses to all comments contained herein prior to the certification of the Final EIR. SCAQMD staff is available to work with the Lead Agency to address these issues and any other questions that may arise. Please contact Jack Cheng, Air Quality Specialist, CEQA IGR, at (909) 396-2448, if you have any questions regarding the enclosed comments.

7b-9

Sincerely,

Lijin Sun

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

Attachment

JW/LS/RR JA/MH/JT/JC/GM

LAC170727-01

Control Number

⁶ SCAQMD, March 3, 2017, *2016 Air Quality Management Plan*. Accessed at: <http://www.aqmd.gov/home/library/ceqa-air-plans/air-quality-mgt-plan>.

Craig Chalfant

3

September 1, 2017

ATTACHMENT

Air Quality and Health Risk Assessment (HRA) Analyses

1. In the Air Quality Section, the Lead Agency quantified the Proposed Project's regional construction and operational⁷ emissions and compared them to SCAQMD's regional air quality CEQA significance thresholds for construction and operation, respectively. Based on a review of the project description described above, SCAQMD staff found that the Proposed Project's construction activities would overlap with oil operations from new wells. In the case of overlapping construction and operation activities, SCAQMD staff recommends adding the construction and operational peak daily emissions in pounds per day and comparing those emissions to SCAQMD's air quality CEQA significance thresholds for operation⁸ to determine the level of significance. 7b-10
2. The Lead Agency estimated the PM emissions and health risks from the proposed four turbines based on the emission estimates of 0.004 lb/MMBtu (high heat value or HHV) for PM10 and PM2.5. According to the e-mail from Solar Turbines to the Lead Agency on November 8, 2016⁹, the standard PM10 and PM2.5 warranty level for the proposed turbines is 0.015 lb/MMBtu (HHV), and the 0.004 lb/MMBtu (HHV) level is not guaranteed. Therefore, SCAQMD staff recommends that the Lead Agency use the higher 0.0015 lb/MMBtu emission rate to ensure that emissions and health risks from the turbines are not underestimated. 7b-11
3. The Proposed Project would include a number of construction and operational activities at four sites with some temporary activities occurring simultaneously and other activities occurring over the course of several years¹⁰. Information on project activities was separately discussed by site and by year in Section 2, *Project Description*, of the Draft EIR¹¹. For example, project activities on Synergy Oil Field Site were discussed by year 1, year 2, year 3, year 4, year 24, and year 44 (see Table 1). However, in the Air Quality Section, mitigated regional construction emissions from VOC and NOx were calculated by construction phases for all four sites (see Table 2 and Table 3), and the Proposed Project's operational emissions were calculated based on a 20-year interval (see Table 4). To be consistent with the project description, SCAQMD staff recommends that the Lead Agency calculate the Proposed Project's construction and operational emissions by site and by year in the Final EIR. 7b-12

⁷ Draft EIR, Section 3.2, Construction: Unmitigated Regional Construction Emissions, Table 3.2-6 (VOC, NOx, CO, SOx, PM10 and PM2.5), Page 3.2-24; Mitigated Regional Construction VOC, Table 3.2-7, Page 3.2-25; and Mitigated Regional Construction NOx, Table 3.2-8, Page 3.2-26. Mitigated Regional Operational Emissions, Tables: 3.2-12, First 40 Years; Table 3.2-13, 20 to 40 Years; and Table 3.2-14, After 40 Years. Page 3.2-29.

⁸ SCAQMD, *Air Quality Significance Thresholds*. Accessed at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>.

⁹ Draft EIR, Appendix B, *Air Quality and Greenhouse Gas Emissions*. June 2017. Page 341.

¹⁰ *Ibid.* Section 2. Page 2-25.

¹¹ *Ibid.*

Craig Chalfant

4

September 1, 2017

Table 1: Copy of Table 2-2 Synergy Oil Field Site Activities

Table 2.2 Synergy Oil Field Site Activities

Quarter	Year 1				Year 2				Year 3				Year 4				Year 24				Year 44			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Demolition and Remediation ^a																								
Well Plugging and Abandonment																								
Grading ^b																								
Site Improvement Work and Remediation Activities ^c																								
Construction of New Oil Facilities ^d																								
Operations ^e																								

^a Remove tank farm #1 and pipelines, re-surfacing as needed. Remove tank farm #2 after L2000 tanks are operating.
^b Install fence and drainage well (restoration area), access building and fire station barrier, gate public access trail.
^c Complete plant installation, install substation, facility track, and fencing along site perimeter, improve parking area and public access trail (separate previously disturbed areas).
^d Release existing Budy Ranch office building and house for use as shelter center, complete public access trail.
^e Reduce future oil production potential by 75% at outset of building permits, conduct well venting operations, reduce venting daily by 55% at 20 years and the balance at 40 years.

Table 2: Copy of Table 3.2-7 Mitigated Regional Construction VOC Emissions

Table 3.2-7 Mitigated Regional Construction VOC Emissions

Construction Phase	VOC (pounds per day)	Percent Reduction from Unmitigated Emissions
1. Demolition/Site Prep	3.5	47%
2. Well Cellars	4.9	32%
3. Process Equipment	5.5	29%
4. Tank Construction	7.7	71%
5. Off-Site Construction	7.7	0%
6. Office/Warehouse	24.4	67%
7. Wetlands Restoration	1.6	82%
8. Turbine Commissioning	12.3	0%
Phases 1-8 Combined	67.6	55%
Landfill Excavation	3.7	18%
Phases 1-9 Combined	71.3	54%
SCAQMD Threshold	75	
Exceeds Threshold?	No	

SOURCE: Greiner & Associates, 2017.

Table 3: Copy of Table 3.2-8 Mitigated Regional Construction NOx Emissions

Table 3.2-7 Mitigated Regional Construction VOC Emissions

Construction Phase	VOC (pounds per day)	Percent Reduction from Unmitigated Emissions
1. Demolition/Site Prep	3.5	47%
2. Well Cellars	4.9	32%
3. Process Equipment	5.5	29%
4. Tank Construction	7.7	71%
5. Off-Site Construction	7.7	0%
6. Office/Warehouse	24.4	67%
7. Wetlands Restoration	1.6	82%
8. Turbine Commissioning	12.3	0%
Phases 1-8 Combined	67.6	55%
Landfill Excavation	3.7	18%
Phases 1-9 Combined	71.3	54%
SCAQMD Threshold	75	
Exceeds Threshold?	No	

SOURCE: Greiner & Associates, 2017.

7b-13

Craig Chalfant

5

September 1, 2017

Table 4: Copies of Table 3.2-12, Table 3.2-13, and Table 3.2-14
Table 3.2-12 Mitigated Regional Operational Emissions—First 20 Years

Site	Maximum Daily Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Pumpkin Patch	4.3	6.5	17.7	0.0	0.9	0.4
Visitors Center	1.3	2.7	10.8	0.0	1.9	0.5
LCWA Site	7.8	5.6	14.6	0.0	0.3	0.2
Turbines at LCWA	54.2	78.0	94.9	14.7	25.0	25.0
Total Project Emissions	67.6	92.8	138.0	14.7	28.1	26.1
Phase out of 75% of Existing	28.0	42.9	17.9	0.1	2.3	1.3
Net Daily Regional Emissions	39.6	49.9	120.1	14.6	25.8	24.8
<i>SCAQMD Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Significant Impact?	No	No	No	No	No	No

SOURCE: Greve & Associates, 2017.

Table 3.2-13 Mitigated Regional Operational Emissions—20 to 40 Years

Site	Maximum Daily Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Pumpkin Patch	4.3	6.5	17.7	0.0	0.9	0.4
Visitors Center	1.3	2.7	10.8	0.0	1.9	0.5
LCWA Site	7.8	5.6	14.6	0.0	0.3	0.2
Turbines at LCWA	54.2	78.0	94.9	14.7	25.0	25.0
Total Project Emissions	67.6	92.8	138.0	14.7	28.1	26.1
Phase out of 87.5% of Existing	32.6	47.1	20.3	0.1	2.5	1.5
Net Daily Regional Emissions	35.0	45.7	117.7	14.6	25.6	24.6
<i>SCAQMD Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Significant Impact?	No	No	No	No	No	No

SOURCE: Greve & Associates, 2017.

Table 3.2-14 Mitigated Regional Operational Emissions—After 40 Years

Site	Maximum Daily Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Pumpkin Patch	4.3	6.5	17.7	0.0	0.9	0.4
Visitors Center	1.3	2.7	10.8	0.0	1.9	0.5
LCWA Site	7.8	5.6	14.6	0.0	0.3	0.2
Turbines at LCWA	54.2	78.0	94.9	14.7	25.0	25.0
Total Project Emissions	67.6	92.8	138.0	14.7	28.1	26.2
Complete Phase Out of Existing Operations	37.2	51.4	22.6	0.1	27	1.6
Net Daily Regional Emissions	30.4	41.4	115.4	14.6	1.1	24.6
<i>SCAQMD Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Significant Impact?	No	No	No	No	No	No

SOURCE: Greve & Associates, 2017.

7b-13
(cont.)

Craig Chalfant

6

September 1, 2017

Meteorological Data and HRA Modeling Parameters

4. For the HRA analysis, 2015-2016 meteorological data from the Los Alamitos Army Airfield (KSLI) was used for air dispersion modeling¹². The U.S. EPA recommends five years of meteorological data, or at least one year of site-specific data for the purposes of air dispersion modeling. Consecutive years from the most recent, readily available five-year period are preferred¹³. Therefore, SCAQMD staff recommends that the Lead Agency update the modeling and HRA with the latest five years of available data. Alternatively, SCAQMD staff has prepared AERMOD-ready meteorological data which could be used by the Lead Agency in the air quality analysis. The meteorological data is available for download at SCAQMD's website¹⁴. 7b-14
5. The Lead Agency used the "Rural" option in AERMOD. Based on a review of aerial photographs, SCAQMD staff found that 50 percent or more of the area within a three-kilometer radius are industrial, commercial, and residential development¹⁵. Therefore, SCAQMD staff recommends that the Lead Agency use the "Urban" rather than the "Rural" option. 7b-15
6. The HRA analysis used a 200-meter spacing receptor grid and placed seven discrete receptors around the 195-acre Proposed Project. The receptor grid and seven discrete receptors may not have identified potential peak concentration locations near residential uses that are located north of the Proposed Project. SCAQMD staff recommends that the Lead Agency use a 100-meter spacing receptor grid and place additional discrete receptors at the residential property boundaries to ensure potential maximum concentrations are identified¹⁶. 7b-16

Recommended Changes to the Existing Mitigation Measure (MM) AQ-1 and MM AQ-2

7. CEQA requires that all feasible mitigation measures go beyond what is required by law to minimize any significant impacts. SCAQMD staff recommends the following revisions to the existing MM AQ-1 and MM AQ-2 that the Lead Agency should include in the Final EIR. Additional information on potential mitigation measures as guidance to the Lead Agency is available on the SCAQMD CEQA Air Quality Handbook website¹⁷. 7b-17

MM AQ-1: Construction Period Use of Low-VOC Paints. The proposed project shall use SCAQMD Rule 1113 compliant paints with a VOC content of ~~75~~50 grams per liter or less¹⁸. 7b-18

MM AQ-2: Construction NOx 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 7b-19

¹² *Ibid.* Appendix B, Page 664.

¹³ United States Environmental Protection Agency, February 2000, *Meteorological Monitoring Guidance for Regulatory Modeling Applications*, Page 6-30. Accessed at: <https://www3.epa.gov/scram001/guidance/met/mmgma.pdf>. See also 40 CFR Ch. I (7-1-11 Edition), *Appendix W to Part 51 – Guideline on Air Quality Models*. Available at: <https://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol2/pdf/CFR-2011-title40-vol2-part51-appW.pdf>.

¹⁴ SCAQMD, *Meteorological Data for AERMOD*. Accessed at: <http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/data-for-aermod>.

¹⁵ United States Environmental Project Agency, 2015, *Section 3.0 Project Site Characteristics*, Accessed at: <https://www.epa.gov/sites/production/files/2015-08/documents/3eld-section3.pdf>.

¹⁶ SCAQMD Modeling Guidance for AERMOD. <http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/modeling-guidance>.

¹⁷ *Ibid.* *Air Quality Analysis Handbook*. Accessed at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>.

¹⁸ SCAQMD Rule 1113 – Architectural Coatings, Pages 1113-13 to 16. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/reg-x/r1113.pdf>.

Craig Chalfant

7

September 1, 2017

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.

7b-19
(cont.)

- In the event that all off-road diesel-powered construction equipment greater than 50 hp cannot meet EPA-Certified Tier IV emission controls, the contractor must demonstrate with written findings supported by substantial evidence that is approved by the Lead Agency before using other equal or more effective construction NOx reduction measures. Alternative measures may include, but would not be limited to, including the use of Tier IV engines in the mix of engines, reducing the number and/or hp rating of construction equipment, limiting the number of individual construction phases occurring simultaneously, and/or limiting the number of daily construction hours.
- Require the use of 2010 model year or newer diesel haul trucks (e.g., material delivery trucks and soil import/export) for hauling activities. In the event that 2010 model year or newer diesel haul trucks cannot be obtained, provide documentation as information becomes available and use trucks that meet EPA 2007 model year NOx emissions requirements, at a minimum. Additionally, consider other measures such as incentives, phase-in schedules for clean trucks, etc. during the construction period.
- Enforce five-minute idling limits for both on-road trucks and off-road equipment.
- 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.
- Provide dedicated turn lanes for movement of construction trucks and equipment on and off site.
- Reroute construction trucks away from congested streets or sensitive receptor areas.

7b-20

7b-21

7b-22

7b-23

Recommended New Mitigation Measure AQ-4: Technology Review

8. The Proposed Project would be implemented over the course of 40 years. There are opportunities to deploy the lowest emission technologies possible. This deployment should include those technologies that are "capable of being accomplished in a successful manner within a reasonable period of time" (California Public Resources Code Section 21061.1), such as zero and near-zero emission technologies that are expected to be available in the life of the Proposed Project. As such, for a phased project where there will be an overlap between construction and operation such as this Proposed Project, SCAQMD staff recommends that the Lead Agency assess equipment availability, equipment fleet mixtures, and best available emissions control devices every two years. To ensure that the biennial technology review is enforceable during the 40-year period, SCAQMD staff recommends that the Lead Agency require the contractors' agreements and development agreements to include the biennial technology review. When a new emission control technology is found feasible and would substantially reduce NOx emissions, but the Lead Agency declines to implement such technology, a subsequent EIR shall be prepared (CEQA Guidelines Section 15162(a)(3)(C)).

7b-24

MM AQ-4: Technology Review. To promote new emission control technologies, every two 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

7b-25

Craig Chalfant

8

September 1, 2017

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

7b-25
(cont.)

Permits

9. The Proposed Project would include decommissioning of or modifications to the existing SCAQMD permitted equipment, and construction of new equipment including, but may not be limited to, natural gas turbines, oil and gas wells, oil gas water separators, storage tanks, gas treatment equipment, vapor recovery systems, flares, internal combustion engines, boilers, carbon absorbers, and waste water treatment. Therefore, SCAQMD should be identified as a Responsible Agency for the Proposed Project in the Final EIR. When existing SCAQMD permitted equipment are inactivated, SCAQMD Billing Services should be notified at (909) 396-2900. Other permitting questions can be directed to SCAQMD Permitting and Engineering staff at (909) 396-2676. For general information on permits, please visit SCAQMD's webpage, at: <http://www.aqmd.gov/home/permits>.

7b-26

Compliance with SCAQMD Rules and Regulations

10. In addition to the SCAQMD rules and regulations discussed in the Draft EIR, the Final EIR should discuss how the Lead Agency will comply with the following rules and regulations:
- 1) Rule 403(e) – Additional Requirements for Large Operations (50-acre sites or more of disturbed surface area; or daily earth-moving operations of 3,850 cubic yards or more on three days in any year) in the South Coast Air Basin¹⁹. The requirements may include, but are not limited to, Large Operation Notification (Form 403 N), appropriate signage, additional dust control measures, and employment of a dust control supervisor that has successfully completed the Dust Control in the South Coast Air Basin training class²⁰.
 - 2) Rule 1149 – Storage Tank and Pipeline Cleaning and Degassing.
 - 3) Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants.

7b-27

¹⁹ Draft EIR, Section 2, Pages 2-3 through 2-5. The Proposed Project consists of four separate sites and is a large operation: 1) Page 2-6: the northern 76.52-acre portion of the 150-acre Synergy Oil Field Site; 2) Page 2-43: 4,030 cubic yards of soil during grading on the 30-acre City Property site; 3) Page 2-50: 21,000 cubic yards for grading on the 7-acre Pumpkin Patch site; and 4) Page 2-59: 7,969 cubic yards of grading on the 5-acre LCWA site.

²⁰ SCAQMD, Rule 403. Last amended June 3, 2005. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf?sfvrsn=4>. SCAQMD Compliance and Enforcement staff's contact information for Rule 403(e) Large Operations is (909) 396-2608 or by e-mail at dustcontrol@aqmd.gov.

Responses to Comment Letters 7a and 7b

Response 7a-1

The comment is an email transmittal letter from the South Coast Air Quality Management District (SCAQMD), submitting a comment letter as a PDF attachment and informing the City that the letter will also be sent by regular mail.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 7b-1

The comment expresses SCAQMD's appreciation to provide comments on the City's Draft EIR.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 7b-2

The comment provides a summary of the project description from the Draft EIR.

On Line 3 of the comment, SCAQMD states that up to 50 new oil wells will be constructed on the Pumpkin Patch and LCWA sites. The project proposes the construction of 120 new oil wells, not 50 new wells on these two sites. The warehouse and office building mentioned on Line 8 will be constructed on the Pumpkin Patch site. On Line 10, the comment states that plugging, and abandonment of oil wells would occur over a period of 8 to 12 years. There are currently 53 existing oil wells on the City and Synergy sites. The project proposes that 50 percent of the wells be phased out by Year 20 after the certificate of occupancy is issued for the new office building on the Pumpkin Patch site, and that remaining 50 percent of the 53 wells be phased out by Year 40. Thus, plugging and abandonment of existing wells would occur as wells are phased out over this 40-year period.

Response 7b-3

The comment provides a summary of the air quality analysis and conclusions of significance, and the Health Risk Assessment (HRA) and its conclusions.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 7b-4

The comment provides a status update on the SCAQMD's Governing Board's adoption of the 2016 Air Quality Management Plan (2016 AQMP) which has also been approved by the California Air Resources Board (CARB). The comment notes that the 2016 AQMP targets a 45 percent reduction in NO_x emissions in 2023 and an additional 55 percent NO_x reduction beyond 2031 levels for ozone attainment.

Draft EIR p. 3.2-12 describes the status of the 2016 AQMP and its March 2017 approval by SCAQMD and CARB. The Draft EIR notes that because the 2016 AQMP has not received approval by the U.S. Environmental Protection Agency and included in the State Implementation Plan, the 2012 AQMP remains the applicable AQMP. Consistency with the applicable AQMP, as well as the 2016 AQMP, was addressed on

Draft EIR pp. 3.2-21 to 3.2-23 and concluded that the project in terms of its design and operation appear to be consistent with the control measures contained in the applicable AQMP and the 2016 AQMP.

Response 7b-5

The comment identifies concerns that impacts from overlapping construction and operation were not analyzed.

The comment is made again in the Attachment to the SCAQMD letter and is identified as Comment 7b-11. Refer to the Response 7b-11.

Response 7b-6

The comment notes that the HRA modeling used parameters not consistent with SCAQMD's recommended methodology.

The comment is repeated in the Attachment to the SCAQMD letter and is identified as Comments 7b-15 through 7b-17. Refer to Responses 7b-15 through 7b-17.

Response 7b-7

The comment reiterates SCAQMD's commitment to attaining the ozone NAAQS as expeditiously as practicable and so as to further reduce NO_x emissions during construction, SCAQMD has reviewed the proposed mitigation measures and proposes a new mitigation measure for consideration.

The measures are described in greater detail in the Attachment to the SCAQMD letter. Refer to Responses 7b-18 through 7b-26.

Response 7b-8

The comment states that since permits from SCAQMD are required for project implementation, SCAQMD should be identified as a Responsible Agency in the Final EIR.

SCAQMD was identified as a Responsible Agency in Draft EIR Chapter 2, *Project Description*, p. 2-74, because it is responsible for reviewing and issuing the permits to construct and operate, and a permit to operate a diesel generator. Therefore, there is no need to further identify the SCAQMD as a Responsible Agency in the Final EIR.

Response 7b-9

The comment states that pursuant to CEQA, the Final EIR responses to SCAQMD's comments must be sent to SCAQMD prior to certification of the Final EIR, and identifies staff available to work with the City.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, the City will comply with the requirement under CEQA to provide responses to comments submitted by public agencies at least 10 days before the Final EIR is proposed to be certified.

Response 7b-10

The comment observes that the proposed project's construction activities would overlap with oil operations, and that the construction and operational peak daily emissions should be added and evaluated against SCAQMD's CEQA significance thresholds.

The City acknowledges the likelihood that at some point in time construction will likely overlap with some operation activities. However, to ensure the emissions presented in the Draft EIR represented the maximum daily level possible, a highly conservative scenario was assumed, in which the scheduling of the construction phases is optimized and days of maximum intensity (and resultant emissions) are assumed to occur concurrently (refer to Sections 2.2.3 and 2.2.4 of the Air Quality Assessment [Draft EIR Appendix B1], and to Draft EIR pp. 3.2-23 to 3.2-24). Mitigation measures and the determination of significance were based on extreme worst-case assumptions regarding the overlap of all phases of construction (see Section 3.1 and specifically Table 15 of the Air Quality Assessment). Operational emissions will be very low in the initial years and increase only as more wells are put into operation. The turbine emissions, which represent the bulk of the operational emissions, are proportional to the number of wells that are producing and will be very low in the initial years. The opposite would occur with construction where the majority of the construction activity would occur during the initial years and would decline substantially after the initial years. Thus even where there may be overlap of some construction activities with operational emissions in the first few years of operation, it is not anticipated that the emissions from the two phases (construction and operation) taken together will exceed the conservatively estimated maximum amount of construction emissions that was identified in the Draft EIR.

In response to the comment, the City identified Year 3 as having the highest potential for operational and construction combined impacts because the level of construction is high and operations have started. A table showing the estimated emissions from overlapping construction and operation emissions in Year 3 is set out below. By Year 3, however, some of the construction will have been completed. Specifically, off-site construction (5), wetlands restoration (7), turbine commission (8), and landfill excavation (9) will have been completed. Additionally, the demolition/site prep will have been completed on most sites with a little of this activity remaining on the Synergy site. It was assumed that the demolition/site prep is reduced by 80 percent by Year 3. Table 9 in the Air Quality Assessment (refer to Appendix B1 of the Draft EIR) presents the operational emissions. All of the operational emissions are likely over-estimated for Year 3, since the project will only just be coming online during this year. Turbine emissions are significantly over-estimated since their load is approximately proportional to the number of producing wells. At the Pumpkin Patch and LCWA sites, only six wells per year per site will be put into production. A reasonably conservative estimate is that the turbines would be running at 25 percent capacity in Year 3 and the emissions in the table below are reduced accordingly.

In the table, emissions from a feasible construction plus operational scenario for Year 3 are summed and compared to the original emission estimates in Table 5 of the Air Quality Assessment (refer to Appendix B1 of the Draft EIR). For all pollutants, the original estimate of construction emissions is higher than the estimate of operation plus construction emissions presented here. Therefore, no new impacts would be identified when considering the overlap between construction and operational emissions. A very conservative approach was taken in the Air Quality Assessment to ensure that emission projections would not be under-estimated. This was necessary due to the unique nature of the project and uncertainties regarding schedules, equipment, and final project design.

Estimate of Construction Plus Operational Emissions for Year 3

	Pollutant Emissions (Pounds Per Day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction Emissions (Based on Table 5 in Appendix B1 of the Draft EIR, and adjusted as described above)						
1. Demolition/Site Prep	1.3	26.0	10.5	0.1	2.0	0.9
2. Well Cellars	7.2	57.8	43.1	0.1	3.9	3.7
3. Process Equipment	7.8	63.8	49.4	0.1	4.2	3.8
4. Tank Construction	26.4	13.1	10.0	0.0	0.9	0.8
5. Off-Site Construction	0.0	0.0	0.0	0.0	0.0	0.0
6. Office/Warehouse	74.8	24.0	19.5	0.0	2.0	1.5
7. Wetlands Restoration	0.0	0.0	0.0	0.0	0.0	0.0
8. Turbine Commission	0.0	0.0	0.0	0.0	0.0	0.0
9. Landfill Excavation	0.0	0.0	0.0	0.0	0.0	0.0
Construction Phases	117.4	184.7	132.5	0.3	13.0	10.7
Operational Emissions (Based on Table 9 in Appendix B1 of the Draft EIR, and adjusted as described above)						
Pumpkin Patch	5.0	19.4	11.6	0.0	1.3	0.8
Visitor Center	1.3	2.7	10.8	0.0	1.9	0.5
LCWA Site	8.4	18.6	8.5	0.0	0.7	0.6
Turbines @ LCWA	13.6	19.5	23.7	3.7	6.2	6.2
Total Project Emissions	28.2	60.2	54.6	3.8	10.1	8.2
Curtailed Emissions	28.0	42.9	17.9	0.1	2.3	1.3
Operational Emissions	0.2	17.3	36.7	3.7	7.8	6.8
Maximum combined emissions due to overlap (Year 3)	117.7	202.0	169.3	3.9	20.8	17.5
Maximum Emissions levels presented in DEIR	156.1	600.4	393.3	4.1	62.0	43.2

In conclusion, even when the overlap of construction and operation activities are assumed, the air pollutant emissions of the combined activities would not exceed the worst-case analysis of construction emissions disclosed and analyzed in the Draft EIR. Substantial evidence in the Draft EIR supports the conclusions of the document. No new significant information or new significant impacts have been identified that were not previously discussed in the Draft EIR. Therefore, none of the conditions that would require recirculation of a Draft EIR pursuant to 14 California Code of Regulations Section 15088.5 are applicable.

Response 7b-11

The comment states that the Draft EIR used emission estimates of 0.004 lb/MMBtu for the four turbines even though this emissions level is not guaranteed by the manufacturer. SCAQMD therefore recommends that the Draft EIR use the higher 0.015 lb/MMBtu [SCAQMD letter erroneously states 0.0015 lb/MMBtu] emission rate to ensure that the emissions and health risks from the turbines are not underestimated.

The comment is correct that the 0.004 lb/MMBtu PM emission rate is not guaranteed by Solar Turbines; however, after several discussions with Solar Turbines, and upon review of documentation provided by Solar Turbines, the City and Applicant were convinced that the guaranteed emission rate of 0.015 lb/MMBtu substantially overestimated the PM emissions for the turbines. A letter from Solar Turbines, which was

included in Draft EIR Appendix B1, Air Quality Assessment, and discussed in Section 2.3.1, Regional Operational Impacts, Appendix B1 p. 25, showed 15 representative turbine test results with an average of 0.003 lb/MMBtu and a 95 percent upper Confidence Level of 0.004 lb/MMBtu. The use of real test data for the Draft EIR presented a more realistic estimate of the PM emissions. Use of the 95 percent upper Confidence Level (i.e., 0.004 lb/MMBtu) instead of the average level of 0.003 lb/MMBtu ensured that a worst-case approach was still being used for the projection. (For ease of reference, the Solar Turbine letter, which was included in Draft EIR Appendix B1, is reproduced at the end of this response.) Because of the additional information from Solar Turbines which cited real test data for turbine emissions, the City and Applicant concluded that reliance on the 0.004 lb/MMBtu was supported by substantial evidence consistent with CEQA Guidelines Section 15384 gathered from real world testing and that re-running the calculations using the higher emission rate is not required to provide an accurate estimate of the turbine emissions. In light of the analysis, future permitting may utilize the 0.004 lb/MMBtu as an operational limit or condition on the turbines.

With respect to health risks, the purpose of a HRA is to address toxic air contaminants (TACs). PM emissions are not considered TACs. Thus, the HRA analysis prepared and included in the Draft EIR was complete and did not require consideration of PM emissions in order to fully analyze the impact TACs from the project may have on the surrounding environment. However, in response to the SCAQMD comment, additional modeling was conducted to analyze potential health risks of PM from turbine operations using the guaranteed emission rate of 0.015 lb/MMBtu. The results of that new model run show an overall reduction in health risk from 7.50 per one million to 4.41 per one million when combined with other HRA modeling revisions discussed in Responses 7b-12 through 7b-14.

The additional information provided in response to the SCAQMD comment is not new information requiring recirculation pursuant to 14 California Code of Regulations Section 15088.5, as no new significant impacts were identified, no substantial increase in the severity of an impact was identified, and the new information, i.e., the new model run, does not show that the project will have a new significant impact not previously analyzed.

Solar Turbines

A Caterpillar Company

Solar Turbines Incorporated

9330 Sky Park Court
San Diego, CA 92123
Tel: (858) 694-1616

Submitted Electronically

November 8, 2016

Fred Greve
Greve & Associates
fred@greveandassociates.com

RE: PM_{10/2.5} Emissions Estimates

Dear Mr. Greve:

Particulate Matter, specifically PM_{10/2.5} can be very difficult to measure from natural gas fired turbines. Nearly all particulate matter from gas turbine exhaust is less than one micrometer (micron) in diameter. Thus the emission rates of TSP, PM₁₀, and PM_{2.5} from gas turbines are theoretically equivalent although source testing will show variation due to test method detection levels and processes.

Historical customer particulate matter source test data show that there is significant variability from test to test. The source test results support the common industry argument that particulate matter from natural gas fired combustion sources is difficult to measure accurately. Over the past few years, source test firms are gaining experience in measuring particulate matter and the variability that we've seen historically from test to test and the emissions levels measured has decreased.

Due to increased testing expertise, Solar has been able to lower the warranty level over the years. However, our warranty level still contains significant margin for the cases where our recommended testing protocol is not followed and/or the test firm/lab is not experienced. As I explained on the phone, our standard PM_{10/2.5} warranty level is 0.015 lb/MMBtu (HHV).

I have a subset of customer source test data that I've collected over the years for which I know the PM_{10/2.5} testing was done properly. The data are summarized in the table on the next page. Provided your particulate matter testing is done by a reputable firm and follows our recommend protocol the PM_{10/2.5} a level of 0.004 lb/MMBtu (HHV) should be attainable in the field. Solar will not warrant the 0.004 lb/MMBtu (HHV) level.

To achieve good results, Solar's recommends that EPA Methods 201/201A¹ be used to measure the "front half". EPA Method 202² (with nitrogen purge and field blanks) should be used to measure the "back half". EPA Method 5³, which measures the front and back halves may be substituted (e.g. where exhaust temperatures do not allow the use of Method 202). The turbine should have a minimum of 300 operating hours prior to conducting particulate matter source testing. The turbine should be running for 3-4 hours prior to conducting a particulate matter source test so that the turbine and auxiliary equipment is in a sustained "typical" operating mode prior to gathering samples. Testing should include three 4-hour test runs.

Run#	Test Data lb/MMBtu (HHV)	Source
Test 1	0.003	NG-43
Test 2	0.004	NG-43
Test 3	0.005	NG-43
Test 1	0.005	NG-44
Test 2	0.005	NG-44
Test 3	0.006	NG-44
Test 1	0.002	NG-46
Test 2	0.002	NG-46
Test 3	0.001	NG-46
Test 1	0.001	NG-48
Test 2	0.002	NG-48
Test 3	0.001	NG-48
Test 1	0.004	NG-47
Test 2	0.002	NG-47
Test 3	0.002	NG-47

average 0.003
95% CI upper 0.004

Please feel free to contact me at 858.694.6809 if you have any questions or need any additional information.

Sincerely,
Solar Turbines Incorporated
Leslie Witherspoon
Manager Environmental Programs
witherspoon.leslie_h@solar-turbines.com

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Turbine Calculations							
Data provided by Solar Turbines dated November 7, 2016							
Based on the use of 4 Mercury 50 turbines							
Output Power (kWe)	Load		4 Turbines				
4,477	100%		17,908				
NOx	lb/hr	lb/day	lb/day				
Lean-Premix	0.812	19.5	78.0	From 100% Load and has 60% reduction SCR			
CO							
Lean-Premix	0.989	23.7	94.9				
VOC							
Uncontrolled	0.565	13.6	54.2				
SO2							
Uncontrolled	0.153	3.7	14.7				
PM10 (condensible)							
Uncontrolled	0.520	12.5	25.0	Emission based on Solar Turbines claim of 0.004 lb/MMBtu			
PM2.5 (filterable)							
Uncontrolled	0.520	12.5	25.0	Emission based on Solar Turbines claim of 0.004 lb/MMBtu			
Greenhouse Gases							
CO2	lb/hr	lb/day	4 Turbines	MT/Yr			
100% Load	5,310	127,440	509,760	84,397			
CO2	4370	104,880	419,520	69,456	67,581		
Average Load (77.84%)				80% Load	77.84% Load		

Response 7b-12

The comment requests that the construction and operation emissions be calculated by site and by year in the Final EIR, to be consistent with the project description.

The City believes presentation of impact assessments in the manner suggested by the comment would be inconsistent with how the *CEQA Guidelines* recommends the analysis of impacts. Specifically, presenting emissions by individual sites segments the analysis of project impacts. Such an analysis may present a picture of lower emissions for the various parcels, and because it fails to take into consideration the other project components, it may be considered inconsistent with the *CEQA Guidelines*. The project will occur on four parcels, but the totality of the project impacts must be considered and impacts based on the total project, i.e., all four sites considered together, not separately.

With regards to estimating emissions on a yearly basis, it should be noted that the overlap between construction emissions and operational emissions for Years 1 to 4 has been addressed in Response 7b-11. Secondly, it must be recognized by the SCAQMD and other reviewers that the estimation of emissions has a certain level of uncertainty given the unique nature of the project. However, every effort has been made to present worst-case maximum estimates of emissions and to avoid under-estimating emissions. Finally, emission estimates have been presented for the first 20 years for the unmitigated and the mitigated emissions on Draft EIR pp. 3.2-27 and 3.2-29 and it is reasonable to assume that those emissions represent a worst-case estimate for every year for the 20 years after construction. Similarly, the projections for Years 20 to 40 represent a worst-case projection for each year in that time span. And finally, the after-40-years projection represents a worst-case estimate for each individual year after Year 40 to the foreseeable future. Therefore, no changes to the emissions estimates are required with the exception of those provided in Response 7b-11.

Response 7b-13

To support some components of its comments, the comment replicated six tables that were included in the Air Quality section of the Draft EIR.

The comments to which these tables relate have been addressed in Comment 7b-11 through Comment 7b-13. The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Response 7b-14

The comment requests that the modeling used in the HRA be updated to analyze the latest 5 years of available data regarding meteorological conditions for the purpose of air dispersion modeling.

The City acknowledges that the HRA used the meteorological data for only one year, not 5 years. This is because the available data that is on the SCAQMD's website is for the 5-year period from 2006–2011, whereas the HRA consultant was able to identify more recent data regarding meteorological conditions. (The HRA used 2015–2016 meteorological data from the Los Alamitos Army Airfield.) Because the 1-year data was more recent and current than what was available on the SCAQMD's website, the preparers of the Draft EIR chose to use the more recent figures.

In response to the comment, however, the City has requested that the HRA modeling be re-run utilizing the 5-year period that is available (2006–2011). The 5-year period, together with the other modeling assumptions discussed in Responses 7b-15 and 7b-16, were incorporated in a new model run which showed a reduction in ambient air concentrations of diesel particulate matter (DPM) and volatile organic compounds (VOCs),

therefore reducing the cancer risk at the MEIR by approximately 41 percent from 7.50 per one million to 4.41 per one million. Although there is no one specific reason for the decrease in the calculated cancer risk, the 5-year period provides an average of the various air conditions, and the 1 year selected for study in the Draft EIR may have been during a time when emissions were higher than what is reflected when averaged over 5 years.

Substantial evidence in the Draft EIR supports the conclusions of the document. None of the information provided in response to the comment constitutes a new significant impact, a substantial increase in the severity of an impact or new information that would require recirculation of the Draft EIR pursuant to 14 California Code of Regulations Section 15088.5.

Response 7b-15

The comment notes that the Draft EIR uses the “Rural” option instead of the “Urban” option to characterize the property against which the HRA is being prepared.

Although the project site is within Long Beach, an urban city, the “Rural” option was used because the four properties that comprise the project site are all on flat terrain and are in close proximity to a large body of water (i.e., the Pacific Ocean). In response to the comment, however, the HRA modeling was re-run utilizing the “Urban” option. The results of the new model run, together with the other modeling assumptions discussed in Responses 7b-14 and 7b-16, show a reduction in ambient air concentrations of DPM and VOCs, therefore reducing the cancer risk by approximately 41 percent from 7.50 per one million to 4.41 per one million.

Substantial evidence in the Draft EIR supports the conclusions of the document. None of the information provided in response to the comment constitutes a new significant impact, a substantial increase in the severity of an impact or new information that would require recirculation of the Draft EIR pursuant to 14 California Code of Regulations Section 15088.5.

Response 7b-16

The comment requests that the Lead Agency use a 100-meter spacing receptor grid instead of the 200-meter spacing receptor grid. In response to the SCAQMD comment, the HRA modeling has been re-run utilizing the 100-meter spacing receptor grid. The results of that new model run, together with the other modeling assumptions discussed in Responses 7b-14 and 7b-15, show a reduction in ambient air concentrations of DPM and VOCs, therefore reducing the cancer risk by approximately 41 percent from 7.50 per one million to 4.41 per one million.

Substantial evidence in the Draft EIR supports the conclusions of the document. None of the information provided in response to the comment constitutes a new significant impact, a substantial increase in the severity of an impact or new information that would require recirculation of the Draft EIR pursuant to 14 California Code of Regulations Section 15088.5.

Response 7b-17

The comment asserts that CEQA requires all feasible mitigation measures go beyond what is required by law to minimize any significant impact.

The City disagrees. In actuality, CEQA only requires that mitigation measures be identified that mitigate the impact to less than significant, or avoid the impact altogether. The *CEQA Guidelines* specifically provide that mitigation measures must bear a reasonable relationship to the impact, that there must be an essential nexus

between the mitigation measure and a legitimate governmental interest, and must be “roughly proportional” to the impacts of the project. Refer to *CEQA Guidelines* Section 15126.4(a)(4).) The comment then states that it recommends revisions to the proposed mitigation measures identified in the Draft EIR. The recommended revisions to the proposed mitigation measures are described in greater detail in Comment 7b-19 through Comment 7b-26. Refer to the corresponding Responses 7b-19 through 7b-26. No further response to the comment is required.

Response 7b-18

The comment recommends that Mitigation Measure AQ-1 be revised to describe the paints as SCAQMD Rule 1113 compliant paints with a VOC content of 50 grams per liter or less.

The City will make the change recommended in the comment in Mitigation Measure AQ-1. The text changes to Mitigation Measure AQ-1, Draft EIR p. 3.2-24, are included in Chapter 10, *Draft EIR Revisions*.

Response 7b-19

The comment recommends that Mitigation Measure AQ-2 be revised to require Tier IV emission vehicles.

Currently, the mitigation measures require Tier IV vehicles where commercially available. In this situation the City has determined that the mitigation measure remain unchanged. Because a variety of equipment is used in oil field production activities, it is not known whether all of the vehicles are commercially available with Tier IV emission controls. Therefore, because it cannot be stated with a certainty that all vehicles that are proposed to be used are Tier IV, the City included the language “where commercially available” and has decided to retain that language.

Response 7b-20

The comment requests that if a construction equipment does not satisfy the Tier IV emission controls, the contractor must demonstrate with written findings supported by substantial evidence before other equipment is used.

Because the City already requires that the contractor provide documentation regarding all construction equipment and its tier specifications, the City believes that information regarding the nature of the equipment must be provided and that the additional written findings suggested by SCAQMD is not necessary. However, in order to clarify that the determination of commercial availability of Tier IV construction equipment is the City’s, the City will add the following language to Mitigation Measure AQ-2:

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.

The addition of the above language will help to further reduce construction air quality emissions. The text changes to Mitigation Measure AQ-2, Draft EIR p. 3.2-25, are included in Chapter 10, *Draft EIR Revisions*. No additional changes are necessary to comply with CEQA.

Response 7b-21

The comment recommends that the City require the use of 2010 model year or newer diesel haul trucks for hauling activities, and if they are not available to require the use of trucks meeting EPA 2007 model year NO_x emission requirements or other incentives.

The City has determined that this mitigation measure is feasible and has included a similar measure on other projects in the City. The City will add the following language to Mitigation Measure AQ-2:

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.

The addition of the above language will help to further reduce construction air quality emissions; however, construction air quality impacts would remain potentially significant and unavoidable during temporary overlapping construction activities. The text changes to Mitigation Measure AQ-2, Draft EIR p. 3.2-25, are included in Chapter 10, *Draft EIR Revisions*. No additional changes are necessary to comply with CEQA.

Response 7b-22

The comment recommends that a 5-minute idling limit be adopted for both on-road trucks and off-road equipment.

The City will incorporate this change in Mitigation Measure AQ-2, and add a requirement for the Applicant to post signs at the gate(s), storage/lay down areas, and at highly visible areas throughout the active portions of the construction site. The text changes to Mitigation Measure AQ-2, Draft EIR p. 3.2-25, are included in Chapter 10, *Draft EIR Revisions*.

Response 7b-23

The comment cites text from the existing Mitigation Measure AQ-2.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 7b-24

The comment recommends a new mitigation measure that every 2 years the Lead Agency conduct a review of emission control technologies, and if newer technology is determined feasible the Lead Agency shall implement such technology.

The Lead Agency is willing to conduct a technology review every 5 years, as opposed to the recommended 2 years, and will provide information regarding newer technology to the Applicant. Note that if the Applicant has received permits and has commenced work in reliance on that permit such that the permit is considered vested, the City is not legally able to impose new requirements. Therefore, while the City may recommend and provide information regarding new technology to the Applicant to consider, it cannot mandate that the technology be implemented as a condition of the permit.

Response 7b-25

The comment provides a recommended mitigation measure regarding the 2-year technology review to implement Comment 7b-24.

The City will revise the mitigation measure as described in Response 7b-24.

Response 7b-26

The comment states that since permits from SCAQMD are required for project implementation, SCAQMD should be identified as a Responsible Agency in the Final EIR.

In fact, SCAQMD was identified as a Responsible Agency on Draft EIR p. 2-74 because it is responsible for reviewing and issuing the permits to construct and operate, and a permit to operate a diesel generator. No change to the Draft EIR is required.

Response 7b-27

The comment requests information as to how the Lead Agency will comply with three SCAQMD rules: Rule 403(e), Rule 1149, and Rule 1466.

The project is required to comply with all applicable laws, regulations and administrative mandates, these include the adopted rules of the SCAQMD, as discussed on Draft EIR p. 3.2-13. A description of how the project will comply with the rules cited in the comment are addressed below:

Rule 403(e), Additional Requirements for Large Operations. This rule applies to large operations on property defined as having 50 or more acres of disturbed surface area, or daily earth-moving operations of 3,850 cubic yards or more on three days in any year. If these thresholds are exceeded, the operator must submit a fully executed Large Operation Notification (Form 403N) to the Executive Officer within 7 days of qualifying as a large operation. The project will be required to implement additional particulate control measures listed in Table 2 of Rule 403 and maintain daily records of specific dust control actions taken as required by Rule 403(e).

The purpose of Rule 403 is to reduce the amount of particulate matter from activities, such as grading. Because the project is required to comply with all laws and regulations, such as Rule 403(e), compliance with the requirements of this rule will be required and addressed through the grading permit issuance. Based upon the air quality analysis, however, all of the construction activities taken together (which will not occur as all of the construction phases will not occur simultaneously) do not exceed the SCAQMD significance thresholds for PM₁₀ and PM_{2.5} (Draft EIR Table 3.2-6, Unmitigated Regional Construction Emissions). Moreover, given the numeric thresholds set forth in the rule, the grading phase for the wetlands restoration area is the only portion of the project that could potentially be subject to coverage under Rule 403(e).

Rule 1149, Storage Tank and Pipeline Cleaning and Degassing. The purpose of this rule is to reduce VOCs and toxics emissions from roof landings, cleaning, maintenance, testing, repair, and removal of storage tanks and pipelines. This rule applies to the cleaning and degassing of a pipeline opened to atmosphere outside the boundaries of a facility, stationary tank, reservoir, or other container, storing or last used to store VOCs. The following practices will be implemented as part of oil field operations to comply with this rule.

Pipe Degassing. With respect to pipe degassing, prior to removal or repair of pipelines, pipelines will be purged of VOCs. Nitrogen will be used to move displacement pigs through the pipeline with VOCs directed to equipment where they will be destroyed or captured. VOCs will be monitored to be below lower explosive limits prior to the pipe being cold cut for repair or removal.

Tank Degassing. Prior to removal or repair of oil storage tanks, tanks will be purged of VOCs. While connected to a vapor recovery system, hydrocarbon liquids will be removed from the tank. The liquids will be replaced with water which is free of VOCs. The tank will be filled with water allowing the vapor recovery system to remove all VOCs. VOCs will be monitored to be below lower explosive limits prior to personnel entering the tank.

Rule 1466, Control of Particulate Emissions from Soils with Toxic Air Contaminants. The purpose of Rule 1466, adopted on July 7, 2017, is to minimize off-site fugitive dust emissions containing toxic air contaminants by establishing dust control measures that can be implemented during earth-moving activities at sites that contain certain toxic air contaminants. Rule 1466 compliance focuses on the following toxic air contaminants: arsenic, asbestos, cadmium, hexavalent chromium, lead, mercury, nickel, and polychlorinated biphenyls. The Rule 1466 contaminant analyses has been conducted on shallow and deep soil samples collected at the Synergy Oil Field, City Property, and Pumpkin Patch sites. The provisions in Rule 1466 include ambient PM₁₀ monitoring, dust control measures, notification, signage, and recordkeeping requirements. If, as a result of monitoring, the owner/operator (generally through its contractor) determines that PM₁₀ concentrations averaged over 2 hours exceed 25 micrograms per cubic meter, the owner/operator shall cease earth moving activities, apply dust suppressant to fugitive dust sources or implement other dust control measures until the PM₁₀ concentrations is equal to or less than 25 micrograms per cubic meter averaged over 30 minutes. Rule 1466 allows for alternative dust control measures, ambient dust concentration limits, and other provisions provided they are approved by the Executive Officer. Compliance with the monitoring, minimization, notification, signage and recordkeeping requirements of Rule 1466 will be required by the City through the grading permit process.

9.2.3 Organizations

Comment letters received from organizations and the Lead Agency's responses to those comments are included on the following pages.

9.2.3.1 California Cultural Resource Preservation Alliance, Inc., September 4, 2017, and September 5, 2017

Comment Letters 8a, 8b, 8c, and 8d

Comment Letter 8a

Subject: FW: Los Cerritos Wetlands Oil consolidation and Restoration Project DEIR
Attachments: Long Beach Los Cerritos Wetlands consolidation and Restoration DEIR.docx

From: Patricia Martz [<mailto:p.martz@ccok.net>]
Sent: Monday, September 04, 2017 1:05 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Subject: Los Cerritos Wetlands Oil consolidation and Restoration Project DEIR

Dear Mr. Chalfant:

Please see the attached letter,

Thank you,

Patricia Martz, Ph.D.
President
California Cultural Resources Preservation Alliance, Inc.

I
8a-1

Comment Letter 8b



P.O. Box 54132
Irvine, CA 92619-4132

California Cultural Resource Preservation Alliance, Inc.
An alliance of American Indian and scientific communities working for
the preservation of archaeological sites and other cultural resources.

September 4, 2017

Re: Los Cerritos Wetlands Oil Consolidation and Restoration Project Draft Environmental Impact Report

Dear Mr. Chalfant:

Thank you for the opportunity to review the above-mentioned project. The mitigation measures for cultural resources presented on Table ES-5 pages 27-30 are appropriate and should be implemented. CUL-7 Archaeological Resource discovery and Treatment states that "If it is determined that the discovered archaeological resource is significant under CEQA, avoidance and preservation in place shall be the preferred manner of mitigation." Given the loss of more than 90% of archaeological sites in coastal California, preservation of the remaining archaeological sites is essential.

8b-1

We do have concerns regarding more efficient oil drilling as it appears that drilling would occur on either side of the Newport-Inglewood fault and recent research suggests that oil drilling may have triggered the deadly 1933 Long Beach earthquake along that fault. I hope that this potential is being taken into consideration and that the project will be revised to avoid this possibility.

8b-2

Sincerely,

Patricia Martz, Ph.D.
President

Comment Letter 8c

Subject: FW: Los Cerritos Wetlands Oil consolidation and Restoration Project DEIR
Attachments: Long Beach Los Cerritos Wetlands consolidation and Restoration DEIR2.docx

From: Patricia Martz [<mailto:p.martz@cox.net>]
Sent: Tuesday, September 05, 2017 6:31 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Cc: 'Virginia' <vbickf123@aol.com>
Subject: Los Cerritos Wetlands Oil consolidation and Restoration Project DEIR

Dear Mr. Chalfant,

Please see the attached letter

I 8c-1

Thank you,

Patricia Martz, Ph.D.
President
California Cultural Resources Preservation Alliance, Inc.

Comment Letter 8d



P.O. Box 54132
Irvine, CA 92619-4132

California Cultural Resource Preservation Alliance, Inc.
An alliance of American Indian and scientific communities working for
the preservation of archaeological sites and other cultural resources.

September 5, 2017

Re: Los Cerritos Wetlands Oil Consolidation and Restoration Project Draft Environmental Impact Report

Dear Mr. Chalfant:

Since writing my letter of September 5th, I re-read the draft EIR, we wish to express our objection to the proposed project for the following reasons: (1) It appears that the city has not contacted all the interested tribal parties. This is required for compliance with SB 52 and SB 18. The wetlands is considered to be a "tribal cultural resource" because it lies between the ethnographically known Gabrielino villages of Puvungna and Motuucheynga and was a valuable hunting and gathering area. Therefore, all potential Native American descendants should be consulted. (2) The significance of the wetlands to past and current tribal people and historically to local people as well is not mentioned in the history or mitigation sections. (3) In addition to the above and our previous concerns regarding the potential for the proposed oil drilling using water injection to cause an earthquake, we are also opposed to this project because according to respected biologists, the restoration plan proposed by this project will result in the destruction of the wetlands and a "tribal cultural resource."

8d-1
8d-2
8d-3
8d-4

Sincerely,

Patricia Martz, Ph.D.
President

Responses to Comment Letters 8a, 8b, 8c, and 8d

Response 8a-1

The comment is an email transmittal letter from the California Cultural Resource Preservation Alliance submitting a comment letter as a PDF attachment.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 8b-1

The comment notes that the cultural resources' mitigation measures presented in the Draft EIR are appropriate and should be implemented, including Mitigation Measure CUL-7, Archaeological Resource Discovery and Treatment.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 8b-2

The comment expresses concerns regarding the project's more-efficient oil drilling on either side of the Newport-Inglewood Fault since recent research suggests oil drilling may have triggered the deadly 1933 Long Beach earthquake along that fault. The comment expresses a preference for the project to be revised to avoid this possibility.

As explained in Draft EIR Chapter 2, *Project Description*, Section 2.5.1.3, Pumpkin Patch Site, p. 2-54, and Section 2.5.1.4, LCWA Site, p. 2-63, the Applicant would drill water injection wells to reinject produced water and oil processing water back into the oil production zones. Oil production wells bring up oil, water, and gas from the production formation. Water injection wells inject sufficient quantities of water back in to the production formation to replace the volume of fluids extracted and restore the existing pressure conditions. The injected water is a mixture of water derived during the oil extraction process, and also water obtained from the source wells. Source wells are wells used to pump salt water from a deep reservoir. Note that water injection wells would be installed on both sides of the Newport-Inglewood Fault to ensure that produced water is returned to oil production zones on both sides of the fault. Repressurizing the oil production zones would prevent subsidence that might trigger movement along the fault. The impact from potential subsidence would be less than significant, as discussed in Impact GEO-6, Draft EIR p. 3.5-7. As discussed in the Regulatory Framework, the regulatory requirements to prevent subsidence by repressurizing oil production zones are summarized in California Division of Oil, Gas, and Geothermal Resources (DOGGR) Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources. Additional information describing the injection of produced water is provided in Appendix E7, Water Injection White Paper.

Response 8c-1

The comment is an email transmittal letter from the California Cultural Resource Preservation Alliance submitting a comment letter as a PDF attachment.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 8d-1

The commenter indicates that the organization now objects to the project for several reasons. The comment states that the City did not contact all of the interested tribal parties per Assembly Bill (AB) 52 and Senate Bill (SB) 18, and that the wetlands is considered a tribal cultural resource.

For purposes of AB 52 and SB 18 consultation, the City sent emails and outreach letters to the 11 tribal individuals/organizations identified by the California Native American Heritage Commission, including the two tribes that had previously requested consultation with the City per AB 52. Two tribes responded, and one tribe requested consultation, as documented in Draft EIR Section 3.16, *Tribal Cultural Resources*. The consulting tribe indicated that the wetland is considered sensitive for cultural resources, particularly for buried archaeological resources, but did not identify the wetland itself as a tribal cultural resource. The mitigation measures presented in the Draft EIR were developed through this consultation, and consultation was concluded.

Response 8d-2

The comment states that the significance of the wetlands to past and current tribal people and historically to local people is not mentioned in the history or mitigation sections.

The City acknowledges that the projects site and the wetlands are sensitive to local Native American tribes, as discussed in Draft EIR Section 3.4, *Cultural Resources*, and Section 3.16, *Tribal Cultural Resources*. The ethnographic background of the Native American inhabitants is presented in Section 3.16, *Tribal Cultural Resources*. In addition, the following paragraph was added to the ethnographic background section of Section 3.16 in Chapter 10, *Draft EIR Revisions*, of this Final EIR:

The project area and the surrounding Los Cerritos wetlands was an important place for the Gabrielino, and remains so today. The area would have served as an important source of fish, game, waterfowl, plants and other resources. Because the area was largely inundated prior to land reclamation and stream channelization in historic and recent times, much of the wetlands would not have been suitable for permanent habitation. However, the wetlands would have been used for hunting, fishing, and resource gathering.

Response 8d-3

The comment expresses concerns regarding the potential for the proposed oil drilling using water injection to cause an earthquake discussed in the September 4 letter.

Refer to Response 8b-2.

Response 8d-4

The comment states opposition to the project because, according to respected biologists, the restoration plan proposed by this project will result in the destruction of the wetlands and a “tribal cultural resource.”

Draft EIR Section 3.3, *Biological Resources*, Section 3.4, *Cultural Resources*, and Section 3.16, *Tribal Cultural Resources*, provide a thorough evaluation of the potential for the proposed project to result in adverse biological resources impacts, cultural resources, and tribal resources. Impacts were determined to be less than significant with implementation of Mitigation Measures BIO-1 through BIO-6 and Mitigation Measures CUL-1 through CUL-9.

The proposed restoration will result in minimal permanent impacts to sensitive natural communities, including wetlands (combined 0.21 acre of permanent impacts according to impacts identified in Table 3.3-15, Permanent Impacts to Sensitive Natural Communities Associated with Grading and Construction of Restoration Areas (Acres): Synergy Oil Field Site—Northern Area; Table 3.3-18, Summary of Permanent Impacts to Sensitive Natural Communities: City Property Site—Pipeline Corridor; and Table 3.3-19, Summary of Permanent Impacts to Sensitive Natural Communities: City Property Site (Off Site in City’s Right-of-Way)—Sidewalk). These permanent impacts would be restored at a minimum of 2:1, and as discussed on Draft EIR p. 3.3-76, are minimal in comparison to the estimated 67.33 acres of coastal salt marsh and transitional wetland habitats proposed for restoration. Therefore, restoration would not significantly destroy wetlands, rather, would provide an increase in the functions and values of wetland habitats onsite.

As described in Response 8b-1, the City engaged in consultation with appropriate Native American tribes as discussed in Draft EIR Section 3.6, *Tribal Cultural Resources*. Through consultation, the City developed mitigation measures designed to protect cultural resources important to local Native American individuals and organizations.

9.2.3.2 Long Beach 350, September 5, 2017

Comment Letters 9a and 9b

Comment Letter 9a

Subject: FW: Comments on Los Cerritos Wetlands Oil Consolidation and Restoration Project DEIR

From: alice lee [<mailto:alicesteven1@gmail.com>]

Sent: Tuesday, September 05, 2017 11:15 PM

To: Craig Chalfant <Craig.Chalfant@longbeach.gov>

Subject: Comments on Los Cerritos Wetlands Oil Consolidation and Restoration Project DEIR

Craig Chalfant, Senior Planner

City of Long Beach Development Services

333 W. Ocean Boulevard, 5th Floor

Long Beach, California 90802

craig.chalfant@longbeach.gov

Dear Mr. Chalfant:

On behalf of Long Beach 350, a local grassroots climate action group and an affiliate of 350.org, I am writing to oppose the Los Cerritos Wetlands Oil Consolidation and Restoration Project upon reading the DEIR. Our group's three main goals are (1) to keep carbon in the ground, (2) help build an equitable carbon-neutral economy, and (3) work with the City to limit emissions exacerbating climate change. Climate change, as you may know, is currently wreaking havoc on our nation's coastlines in the form of "once-in-a-thousand-years" storms. Houston is just beginning to assess the damage caused by Hurricane Harvey, a Category 4 storm that slammed the Texas coastline a week ago, while Puerto Rico and the U.S. Virgin Islands prepare for tomorrow's inevitable destruction of Hurricane Irma, currently classified as a Category 5 storm making its way to Florida.

9a-1

It shouldn't take such tragedy to understand climate change is real and it is unrelenting. Fossil fuels like gas and oil are primary contributors to greenhouse gas (GHG) emissions, and as stated in Chapter 3: Section 3.6 of the DEIR, "the scientific community agrees that there is a direct link between increased emissions of GHGs and long-term global temperature increases." Long Beach 350 strongly believes the proposed oil consolidation and restoration project will cause unretractable damage to our climate resulting in global harm.

9a-2

Among the most alarming data found in this DEIR is the estimated net yearly GHG emissions projected for the project. Table 3.6-4 from the DEIR summarizes: "... construction and operation of the proposed project would result in net GHG emissions of approximately 63,642 MTCO₂e/year for the first 20 years, 60,866 MTCO₂e/year for years 20 through 40, and 48,145 MTCO₂e/year for any time after 40 years."

9a-3

Table 3.6-4, Estimated Net Project Greenhouse Gas (GHG) Emissions, MTCO₂e/year, summarizes the impact the phase out would have on the project's total GHG emissions. As shown in Table 3.6-4, construction and operation of the proposed project would result in net GHG emissions of approximately 53,642 MTCO₂e/year for the first 20 years, 50,955 MTCO₂e/year for years 20 through 40, and 48,145 MTCO₂e/year for any time after 40 years.

Table 3.6-4 Estimated Net Project Greenhouse Gas (GHG) Emissions, MTCO₂e/year

Emission Source	First 20 years	Years 20 to 40	After 40 years
Annualized Construction Emissions ^a	157	157	0
Operational Emissions (stationary sources)	67,581	67,581	67,581
Operational Emissions (other sources) ^b	2,775	2,775	2,775
Total Annualized Emissions	70,513	70,513	70,356
Curtailed Emissions	(16,871)	(19,558)	(22,211)
Net Total Annualized Emissions	53,642	50,955	48,145
GHG Significance Threshold	10,000	10,000	10,000
Exceeds Significance Threshold?	Yes	Yes	Yes

SOURCE: Greve & Associates, 2017.

a. Construction emissions are annualized over 30 years; therefore, after 40 years, these emissions are reported as zero.

b. A portion of these emissions are from motor vehicles, which would decline in future years as vehicles are replaced with newer models that meet more stringent emission standards. Therefore, these emissions represent a conservative estimate for the future years and actual emission would likely be lower.

This means the project would result in just over 1,000,000 MTCO₂e/yr in the first 20 years, that is, 1 MMT of CO₂ emissions, and another 1 MMT of CO₂ in the next 20 years. That would be the same as ADDING an extra 11,000 gas-burning cars every day on the road each year for 40 years! Any wetlands restoration proposed by this project surely would have little positive impact compared to the negative impacts of these GHG emissions. And the benefits of restoration may not be realized for at least 40 years, as opposed to the huge GHG emissions that would begin from Day One.

Whatever the financial rewards may be for the City of Long Beach or Beach Oil Minerals Partners (BOMP) to propose this irresponsible project, it is clearly not worth the social costs that will be incurred, both locally and globally. **We cannot afford to allow any new fossil fuel projects to be developed if we want to do something about climate change.** Our state of California has a legal responsibility to reduce GHG emissions 80% below 1990 levels by 2050, and this project will instead set us back several decades. Going forward with this project would be a mistake that cannot be corrected. Please do not accept this proposed project.

Thank you,
Alice Stevens, organizer
Long Beach 350
4627 E Cervato St.
Long Beach, CA 90815

9a-3
(cont.)

9a-4

9a-5

Comment Letter 9b

From: Alice Lee [mailto:alicestevens1@gmail.com]
Sent: Tuesday, September 05, 2017 11:28 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Subject: Re: Comments on Los Cerritos Wetlands Oil Consolidation and Restoration Project DEIR

Dear Mr. Chalfant:

I meant to include two links as sources for my data in my previous email:

- For the study on manmade (fossil fuels) climate change: <http://pubs.csiro.au/article/10.1088/1748-9326/8/2/024024/pdf>
- And for the equivalency of cars to MMT or CO₂ emissions: <https://www.arb.ca.gov/cc/fact sheets/1mmconversion.pdf>

9b-1

Regards,
Alice Stevens
Long Beach 350
4627 E. Cervato St.
Long Beach, CA 90815

On Tue, Sep 5, 2017 at 11:15 PM Alice Lee <alicestevens1@gmail.com> wrote:

Craig Chalfant, Senior Planner
City of Long Beach Development Services
333 W. Ocean Boulevard, 5th Floor
Long Beach, California 90802
craig.chalfant@longbeach.gov

Dear Mr. Chalfant:

On behalf of Long Beach 350, a local grassroots climate action group and an affiliate of 350.org, I am writing to oppose the Los Cerritos Wetlands Oil Consolidation and Restoration Project upon reading the DEIR. Our group's three main goals are (1) to keep carbon in the ground, (2) help build an equitable carbon-neutral economy, and (3) work with the City to limit emissions exacerbating climate change. Climate change, as you may know, is currently wreaking havoc on our nation's coastlines in the form of "once-in-a-thousand-years" storms. Houston is just beginning to assess the damage caused by Hurricane Harvey, a Category 4 storm that slammed the Texas coastline a week ago, while Puerto Rico and the U.S. Virgin Islands prepare for tomorrow's inevitable destruction of Hurricane Irma, currently classified as a Category 5 storm making its way to Florida.

It shouldn't take such tragedy to understand climate change is real and it is unrelenting. Fossil fuels like gas and oil are primary contributors to greenhouse gas (GHG) emissions, and as stated in Chapter 3, Section 3.6 of the DEIR: "the scientific community agrees that there is a direct link between increased emissions of GHGs and long-term global temperature increases." Long Beach 350 strongly believes the proposed oil consolidation and restoration project will cause unretractable damage to our climate resulting in global harm.

Among the most alarming data found in this DEIR is the estimated net yearly GHG emissions projected for the project. Table 3.6-4 from the DEIR summarizes: "...construction and operation of the proposed project would result in net GHG emissions of approximately 53,642 MTCO₂e/year for the first 20 years, 50,955 MTCO₂e/year for years 20 through 40, and 48,145 MTCO₂e/year for any time after 40 years."

Table 3.6-4, Estimated Net Project Greenhouse Gas (GHG) Emissions, MTCO₂e/year, summarizes the impact the phase out would have on the project's total GHG emissions. As shown in Table 3.6-4, construction and operation of the proposed project would result in net GHG emissions of approximately 53,642 MTCO₂e/year for the first 20 years, 50,955 MTCO₂e/year for years 20 through 40, and 48,145 MTCO₂e/year for any time after 40 years.

Table 3.6-4 Estimated Net Project Greenhouse Gas (GHG) Emissions, MTCO₂e/year

Emission Source	First 20 years	Years 20 to 40	After 40 years
Annualized Construction Emissions ^a	157	157	0
Operational Emissions (stationary sources)	67,581	67,581	67,581
Operational Emissions (other sources) ^b	2,775	2,775	2,775
Total Annualized Emissions	70,513	70,513	70,356
Curtailed Emissions	(16,871)	(19,558)	(22,211)
Net Total Annualized Emissions	53,642	50,955	48,145
GHG Significance Threshold	10,000	10,000	10,000
Exceeds Significance Threshold?	Yes	Yes	Yes

SOURCE: Greve & Associates, 2017.

a. Construction emissions are annualized over 30 years; therefore, after 40 years, these emissions are reported as zero.

b. A portion of these emissions are from motor vehicles, which would decline in future years as vehicles are replaced with newer models that meet more stringent emission standards. Therefore, these emissions represent a conservative estimate for the future years and actual emission would likely be lower.

This means the project would result in just over 1,000,000 MTCO₂e/yr in the first 20 years, that is, 1 MMT of CO₂ emissions, and another 1 MMT of CO₂ in the next 20 years. That would be the same as ADDING an extra 11,000 gas-burning cars every day on the road each year for 40 years! Any wetlands restoration proposed by this project surely would have little positive impact compared to the negative impacts of these GHG emissions. And the benefits of restoration may not be realized for at least 40 years, as opposed to the huge GHG emissions that would begin from Day One.

Whatever the financial rewards may be for the City of Long Beach or Beach Oil Minerals Partners (BOMP) to propose this irresponsible project, it is clearly not worth the social costs that will be incurred, both locally and globally. **We cannot afford to allow any new fossil fuel projects to be developed if we want to do something about climate change.** Our state of California has a legal responsibility to reduce GHG emissions 80% below 1990 levels by 2050, and this project will instead set us back several decades. Going forward with this project would be a mistake that cannot be corrected. Please do not accept this proposed project.

Thank you,
Alice Stevens, organizer
Long Beach 350
4627 E Cervato St.
Long Beach, CA 90815

Responses to Comment Letters 9a and 9b

Response 9a-1

The comment states that it is being submitted on behalf of Long Beach 350, which is an affiliate of 350.org, and that they are opposed to the project. The group's three main goals are to keep carbon in the ground, to build a carbon-neutral economy and to work with the City to limit emissions that exacerbate climate change. The comment discusses the recent hurricanes Harvey and Irma.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 9a-2

The comment expresses the concern that climate change is real and that fossil fuels like gas and oil are primary contributors to greenhouse gas and that the project will result in global harm.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 9a-3

The comment reproduces Draft EIR Table 3.6-4, Estimated Net Project Greenhouse Gas (GHG) Emissions, MTCO₂e/year.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 9a-4

The comment states that based upon the estimated GHG emissions, the project would result in over 1,000,000 metric tonnes of GHG in the first 20 years and another million in the next 20 years. The comment also states that this is the same as adding 11,000 cars on the road each year for 40 years. Any wetlands restoration would have little positive impact compared to the impact of the emissions.

As discussed in Draft EIR Section 3.6, *Greenhouse Gas Emissions*, p. 3.6-20, the majority of the operational GHG emissions resulting from the project that exceed the threshold of significance of 10,000 MTCO₂e/year are generated by the gas turbines that will be installed to provide power for the oil production operations. Draft EIR Table 3.6-4, reproduced in the comment, identifies that the operational emissions from sources other than the gas turbines are calculated to be 2,775 MTCO₂e/year, which is well below the threshold of 10,000 MTCO₂e/year, but that the emissions from the gas turbines exceed the threshold.

Because the gas turbines are considered a power generating source that falls within the category of "covered entities" under the State's Cap-and-Trade Program, the project is required to comply with CARB's Cap-and-Trade regulation. Because the project must comply with AB 32 and CARB's Cap-and-Trade regulation it will be required to retire GHG allowances or offsets equal to the project's GHG emissions. Retiring the GHG allowances or offsets means the project has to acquire them through a number of means carefully controlled by CARB, including the purchase of allowances in CARB-controlled auctions with variable and increasing cost, according to projections and decreasing supply. Participation in the Cap-and-Trade Program would provide mitigation for the project's emissions by retiring GHG allowances and offsets. Because GHG emissions are a

global impact, and not local to Long Beach, emissions that are reduced through the Cap-and-Trade Program will provide an overall, i.e., global, reduction of GHG emissions. The comment is correct in calculating that, over a period of 20 to 40 years, the annual emissions when totaled will exceed 1 million tonnes of GHG; however, participation in the Cap-and-Trade Program will also mean that the project's retirement of GHG allowances and offsets will result in the reduction of GHG emissions emitted elsewhere by an equivalent amount, thus globally providing no net increase in emissions. Moreover, the annual operational/facility-wide GHG emissions are calculated to be 70,356 metric tons, which is a worst-case calculation of emissions with turbines operating at 100 percent, even though the turbines are projected to operate well below 100 percent. Thus, the project's participation in CARB's Cap-and-Trade regulation will result in the retirement of GHG emissions allowances and offsets that are equal to the project's GHG emissions on a year-to-year basis.

For comparison, the annual GHG emissions as shown in the Draft EIR shows GHG emissions of 53,611 metric tons, which accounts for both construction and operational emissions. This means the Cap-and-Trade regulation will require the Project to mitigate GHG emissions beyond the amount identified the Draft EIR.

Table 8 CARB Cap-and-Trade GHG Mitigation Compared to Project EIR GHG Emissions

GHG Emission/Mitigation Source	CO ₂ Emissions/Mitigation (Metric Tons CO ₂ EQ/Year)
EIR Construction and Operations GHG Emissions	53,611
CARB Cap-and-Trade Mitigation	(70,356)
Excess GHG Mitigation with Cap-and-Trade	(16,745)

Thus, the requirement that the project participate in CARB's Cap-and-Trade program provides adequate GHG mitigation by reducing emissions beyond what is otherwise calculated by the Draft EIR.

Response 9a-5

The comment states that whatever the financial rewards may be for the City or the applicant with respect to this project, it is not worth the social costs, locally or globally, and that new fossil fuel projects should not be developed if something is to be done about climate change. The comment states the legal responsibility of the State to reduce GHG emissions by various future years. The comment ends with a request to not accept the proposed project.

The State has enacted regulations to reduce transportation sector GHG emissions. According to CARB's *Advanced Clean Cars Midterm Review* (January 2017), an extensive multiyear joint-agency 2016 Technical Assessment Report determined that the currently adopted vehicle model year 2022 through 2025 GHG emission standards can be readily met at the same or lower cost than originally projected when the standards were adopted in 2012, predominantly with advanced gasoline engines and transmissions. The analysis was based on updated national vehicle forecast regarding the changes in vehicle fleet composition from recent truck and vehicle sales data. An analysis specific to California also determined that the State is on track to achieve the projected GHG reductions from the 2025 model year fleet and that changes to the stringency of the national or California GHG vehicle emission standards are not necessary or warranted. With respect to the State's 2030 GHG emissions target, the CARB *Mobile Source Strategy* report (May 2016) indicates approximately 3 million additional zero emission vehicles (ZEVs) (i.e., battery, electric, and fuel cell electric) and plug-in hybrid electric vehicles (PHEVs) will be needed in the 2026–2030 period. However, CARB

recognizes that revisions to the State's ZEV and PHEV program and regulations would require greater market acceptance, more technology advancements, and lower technology costs than is known with certainty today. Thus, while reducing the number of gasoline- and diesel-fueled vehicles is likely necessary to achieve the State's 2030 GHG emissions target, it is not necessary or required to eliminate all gasoline- and diesel-fueled vehicles within the project's operational planning horizon, especially given the uncertainty regarding market acceptance, technology advancements, and technology costs.

As discussed in Draft EIR Section 3.6, *Greenhouse Gas Emissions*, pp. 3.6-11 and 3.6-12, according to CARB, crude oil production and transport from the Seal Beach oil field (project-related oil field) has a carbon intensity factor of 5.08 grams carbon dioxide equivalent (CO₂e) per megajoule (g CO₂e/MJ). This value is considerably lower than the state average of 11.98 g CO₂e/MJ and is, therefore, consistent with the goal of the State's Low Carbon Fuel Standard to reduce the carbon intensity of transportation fuels. As a result, the project would not conflict with the State's ability to achieve its adopted GHG emission targets.

Response 9b-1

The comment submits two links to websites with source material for the data relied upon in the commenter's previous email that was transmitted on September 5, 2017 (Comment Letter 9a).

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.3.3 El Dorado Audubon Society (prepared by Hamilton Biological), September 6, 2017

Comment Letters 10a and 10b

Comment Letter 10a

Subject: FW: Hamilton Biological Comments on BOMP DEIR

From: Robert Hamilton [<mailto:robb@hamiltonbiological.com>]
Sent: Wednesday, September 06, 2017 3:04 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Cc: Mary Parsell <mfp2001@hotmail.com>; Cindy Crawford <ccc1174@aol.com>; Posner, Chuck@Coastal <Chuck.Posner@coastal.ca.gov>; Kate.Huckelbridge@coastal.ca.gov; Wilson, Erinn@Wildlife <Erinn.Wilson@wildlife.ca.gov>
Subject: Hamilton Biological Comments on BOMP DEIR

Dear Mr. Chalfant,

On behalf of El Dorado Audubon Society, Hamilton Biological, Inc., provides the attached comments.

Please confirm receipt of the attached PDF file.

Thank you,
Robb Hamilton
President, Hamilton Biological, Inc.

<Hamilton Bio Comments_BOMP DEIR_El Dorado Audubon_9-6-17.pdf>

10a-1

Comment Letter 10b



September 6, 2017

Craig Chalfant
Planning Bureau, Development Services Department
City of Long Beach
333 West Ocean Boulevard, 5th Floor
Long Beach, CA 90802

**SUBJECT: REVIEW OF DRAFT EIR
LOS CERRITOS WETLANDS OIL CONSOLIDATION AND
RESTORATION PROJECT**

Dear Mr. Chalfant,

On behalf of the El Dorado Audubon Society, Robert Hamilton, President of Hamilton Biological, Inc. has reviewed the Draft Environmental Impact Report (DEIR), dated July 2017, for the *Los Cerritos Wetlands Oil Consolidation and Restoration Project* (the proposed project). Hamilton Biological is a consultancy specializing in field reconnaissance, regulatory compliance, preparation of CEQA documentation, and third-party review of CEQA documentation. Please refer to the attached curriculum vitae. Mr. Hamilton's review focuses on evaluating potential effects of the project upon biological resources, in the context of the Project Objectives described in Chapter 2 of the DEIR, the Project Description.

HABITAT RESTORATION VS. ESTABLISHMENT OF PLANT COMMUNITIES

The Synergy Oil Field site contains only a relatively small fragment of the historical Los Cerritos Wetlands, encircled by an extensively urbanized landscape. The proposed project has great potential to restore ecological function to this key portion of the Los Cerritos Wetlands complex, which has long been subject to degradation from oil-drilling. From the very start of the planning process for this project, El Dorado Audubon has emphasized the importance of very thoughtfully and carefully balancing the competing interests of habitat restoration/conservation and educational/recreational uses at this highly constrained location.

I have concerns, however, that the project proponent and the City appear to be underestimating the potential for future recreational uses of the site to diminish the ecological integrity of the existing habitat in Steamshovel Slough, and that to be created through project implementation. Hikers, bikers, picnickers, and kayakers all have potential to disturb marsh-dwelling wildlife species that are sensitive to human presence. The im-

316 Monrovia Avenue Long Beach, CA 90803 562-477-2181 robb@hamiltonbiological.com

Review of DEIR for Los Cerritos Oil Consolidation And Restoration Project
September 6, 2017

Hamilton Biological, Inc.
Page 2 of 8

pacts may not be readily discernible, because it's not always possible to determine why a certain species is absent from what appears to be suitable habitat. That is why the most prudent and scientifically defensible approach for any serious habitat restoration project is to take all feasible precautions to ensure the success of the restoration — not simply in terms of establishing the desired plant communities, but in terms of providing high-quality habitat that sensitive plant and wildlife species can successfully occupy in order to survive within the small area of historical coastal wetland habitat that remains in this part of Long Beach. My specific comments are made with this overarching goal of establishing **viable native habitats** and not simply nice-looking plant communities that support unnecessarily depauperate native wildlife populations.

10b-4
(cont.)

PLANT SELECTION

This is a habitat restoration project, and all of plants installed as part of project implementation should be native to Long Beach. Exotic landscape species, such as Peppermint Tree (*Agonis flexuosa*) and Candelabra Aloe (*Aloe arborescens*), and species native to local mountains, such as Deer Grass (*Muhlenbergia rigens*), are not consistent with a native habitat restoration project, and fail to promote any of the Project Objectives. Use of locally native plants would fulfill Project Objectives by increasing the site's value for local plant and wildlife species, and by providing ecological education. The landscaping approach proposed in the DEIR sends an unfounded and confusing message that, even in a habitat restoration project, exotic plants that satisfy a landscape architect's aesthetic sense are superior to plant species native to the Los Cerritos Wetlands.

10b-5

PROPOSED ESTABLISHMENT OF PICNIC AREA

Page 2-41 describes the establishment of "green areas and picnic facilities" and Page 3.14-9 twice mentions an "overlook terrace with picnic facilities." Figure 2-18 on Page 2-40 shows picnic tables in what appears to be a turf area. Chapter 2 of the DEIR, Project Description, lists 12 Project Objectives, none of which could be furthered through picnicking. In discussions with the project proponent, never has a picnic area at the Synergy Oil Field site been raised even as a possibility.

10b-6

Not only would devoting part of this highly constrained site to "green areas and picnic tables" fail to contribute toward achieving any Project Objective listed in the DEIR, but such an action would detract from some of these objectives by introducing an incompatible land-use element to the project. Visitors bringing food to the site, and consuming it near the restored wetlands, would increase the potential for trash to blow into the wetlands while creating improved conditions for opportunistic predators of low conservation priority that are known to prey upon special-status species. Such omnivorous predators as crows, ravens, and raccoons are known to (a) steal food items from picnickers, and/or (b) obtain scraps of food not thrown away or otherwise disposed of securely. The photo on the following page shows two crows stealing food that a worker momentarily left unattended at a job site near Upper Newport Bay in Orange County.

10b-7

Review of DEIR for Los Cerritos Oil Consolidation And Restoration Project
September 6, 2017

Hamilton Biological, Inc.
Page 3 of 8



Such occurrences are commonplace, even in areas where people are required to properly dispose of food and other trash items (such as the work site shown above). Anyone who has visited a local park the morning after a typical weekend knows that members of the public frequently fail to handle trash and food items with care. The potential for picnickers to introduce food and trash to natural areas where food and trash are not currently permitted is a potentially significant impact to biological resources that is not acknowledged or analyzed in the DEIR.

10b-7
(cont.)

Since the proposed picnic facilities would not promote any of the stated Project Objectives, but instead would (a) reduce the area of native habitat that could otherwise be established, and (b) diminish the potential to successfully establish populations of special-status plant and animal species on the site, creation of a picnic area should be removed from the actions proposed in the DEIR. The area currently shown as a green space with picnic facilities should, instead, be planted with appropriate native plants in order (1) to increase the area of habitat for native plant and wildlife species, and (2) to help buffer the wetland creation area from proposed human uses to the south, in furtherance of the stated Project Objectives.

10b-8

KAYAKING

Page 3.14-2 of the DEIR states: "Within the project vicinity, the Los Cerritos Channel and Steamshovel Slough are used by recreational kayakers year round." Page 3.14-7 states: "Currently, the project site is closed to the public; however, the Los Cerritos Channel that is adjacent to the site and the Steamshovel Slough that bisects the northern portion of the site both provide recreational activities for boaters and kayakers."

10b-9

Review of DEIR for Los Cerritos Oil Consolidation And Restoration Project
September 6, 2017

Hamilton Biological, Inc.
Page 4 of 8

These descriptions yield an impression that kayakers frequently use Steamshovel Slough, but in fact such use is sporadic and occasional (Leonard Arkinstall pers. comm.). Kayaking is not allowed at larger wetland restoration projects in the local area, such as Bolsa Chica and the Huntington Beach Wetlands. It is not clear why kayaking should be allowed within a very limited area that the project proponent expects to sell for wetland mitigation credits (which is not the case, currently). The EIR should be much more precise in its depiction of existing kayak use of the site, and should discuss in detail the extent to which kayaking might be allowed to occur on the site post-project, including a thorough and credible impact analysis that will ensure that any kayak use would not result in any potentially significant impacts to sensitive ecological resources.

10b-9
(cont.)

Given the potential for kayakers to disturb sensitive wildlife species within the relatively small area of navigable water available on the site, kayaking on the project site should either be prohibited or greatly limited, and conducted only under an agency-monitored program that involves biological monitoring, as well as reporting of wildlife response to kayakers. If such monitoring indicates that wildlife is flushing or otherwise responding negatively to kayakers, the kayak program should either be curtailed or discontinued.

10b-10

INACCURATE AND INCOMPLETE REVIEW OF SPECIAL-STATUS SPECIES

The DEIR's treatment of special-status species, and biological resources in general, is generally superficial and inadequate. In order to comply with the requirements of CEQA, a DEIR must review and accurately summarize all relevant, available information reported in the published and unpublished literature concerning documented observations of special special-status species in the project vicinity. For this project, the EIR preparer appears not to have consulted and summarized information provided in various standard resources, such as eBird (www.ebird.org) and Calflora (www.calflora.org). The DEIR either mis-reports, or fails to discuss in adequate detail, the local status of several other special-status species, including several species included in Appendix A to the Habitat Assessment Report dated August 31, 2012, prepared by Tidal Influence:

10b-11

http://www.practicepraxis.org/uploads/1/6/2/7/16274920/habitat_assessment_report_final_aug31_revision.pdf

Some examples of inadequate/inaccurate species accounts are provided below.

Regarding Coulter's Goldfields (*Lasthenia glabrata* ssp. *coulteri*), Page 3.3-17 states:

Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Federal: None State: None CRPR:1B.1	Playas, vernal pools, marshes and swamps (coastal salt).	Not observed on site, no suitable habitat present. Not detected during surveys.
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10b-12

This species has been recorded by many people on the Hellman Property, very close to the project site. In 2015, biologist Dan Cooper documented the Hellman population

Review of DEIR for Los Cerritos Oil Consolidation And Restoration Project
September 6, 2017

Hamilton Biological, Inc.
Page 5 of 8

with a collection placed at the UC Riverside Herbarium, as reported in the Consortium of California Herbaria web page:

http://ucjeps.berkeley.edu/cgi-bin/new_detail.pl?accn_num=UCR265492&YF=1

As recorded by Mr. Cooper, the location of this population is in a "low spot along fence line, missed in disking":

Specimen number	UCR265492
Determination	<i>Lasthenia glabrata</i> subsp. <i>coulteri</i> <small>More information: Jepson Online Interchange</small>
Collector, number, date	Dan S. Cooper, 2015- 44, 2015-03-10
County	Los Angeles
Locality	Los Angeles Basin; Coastal Plain, Seal Beach near Long Beach border, 'Hellman Property
Elevation	2 m
Coordinates	33.75250 -118.09889 <small>BerkeleyMapper (or without script, here)</small>
Datum	not recorded; ER = Lat: 1000; Long: 1000 m
Coordinate source	GoogleEarthACS
Voucher information	<i>macromorphology</i> Within oil fields, in low spot against fence line, missed in disking. Annual; fls. yellow. 2 m

The project site contains large areas that are not obviously different than the high-marsh habitat along a fence-line where Coulter's Goldfields has been documented on the Hellman Property, so the DEIR's assertion of "no suitable habitat present" warrants re-evaluation.

Page 3.3-24 of DEIR states that the Crotch Bumblebee (*Bombus crotchii*) is absent from the site "due to lack of suitable habitat":

Crotch bumble bee	Federal: None	Relatively warm and dry sites, including the	Not detected during surveys. No
<i>Bombus crotchii</i>	State: None	inner Coast Range of California and margins of	potential to occur on site due to lack
	CNDDB: S1S2	the Mojave Desert.	of suitable habitat.

On July 17, 2017, *Bombus crotchii* was recorded at Carpinteria Salt Marsh in Santa Barbara County:

<http://bugguide.net/node/view/1407705>

Species identification was made by bee expert John S. Ascher, PhD. The habitat at Carpinteria Salt Marsh is generally comparable to that at Steamshovel Slough. On what basis did the project biologists determine that *Bombus crotchii* must be absent from the project site due to "lack of suitable habitat"?

Page 3.3-26 of DEIR states that the Red Diamond Rattlesnake (*Crotalus ruber ruber*) is absent from the site "due to lack of suitable habitat":

Red diamond rattlesnake	Federal: None	Chaparral, woodland, grassland, & desert	No potential to occur on site due to a
<i>Crotalus ruber ruber</i>	State: None	areas from coastal San Diego county to the	lack of suitable habitat on any of the
	CDFW: CSC	eastern slopes of the mountains. Occurs in	individual sites.
	CNDDB: S3	rocky areas & dense vegetation. Needs rodent	
		burrows, cracks in rocks or surface cover	
		objects.	

Review of DEIR for Los Cerritos Oil Consolidation And Restoration Project
September 6, 2017

Hamilton Biological, Inc.
Page 6 of 8

The 2012 report by Tidal Influence indicates that the Red-Diamond Rattlesnake has been recorded in the Los Cerritos Wetlands. The record of this species may have been of questionable provenance (i.e., it may have been moved there from elsewhere), but, at minimum, the occurrence of the species on Tidal Influence's species list should have been reported and discussed in the DEIR.

10b-19

With regard to the **Black Skimmer**, the DEIR states:

Black skimmer <i>Rynchops niger</i>	Federal: None State: None CDFW: CSC CNDD8: 52	Nests on gravel bars, low islets and sandy beaches, in unvegetated sites.	Not observed on site and low potential to occur within Steamshovel Slough for foraging.
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10b-20

The 2012 Habitat Assessment Report by Tidal Influence states:

Black Skimmer (<i>Rynchops niger</i>)	Fed: None State: SSC	They are found nesting and roosting on open sandy beaches, shell bars with sparse vegetation or on mats of sea wrack in salt marshes. Feed on fish skimmed from the surface of the water.	Present: This species has been documented foraging in Steamshovel Slough and has a year-round presence on sandy beach areas in Long Beach
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10b-21

With regard to the **Northern Harrier**, Page 3.3-82 of the DEIR states:

- **Northern harrier (nesting)**—Areas of Steamshovel Slough and areas south of the berm within the proposed Mitigation Bank Area exhibit potential for foraging northern harrier; however, these areas do not contain potential for nesting; therefore, there are no areas of potential ESHA affected by the project.

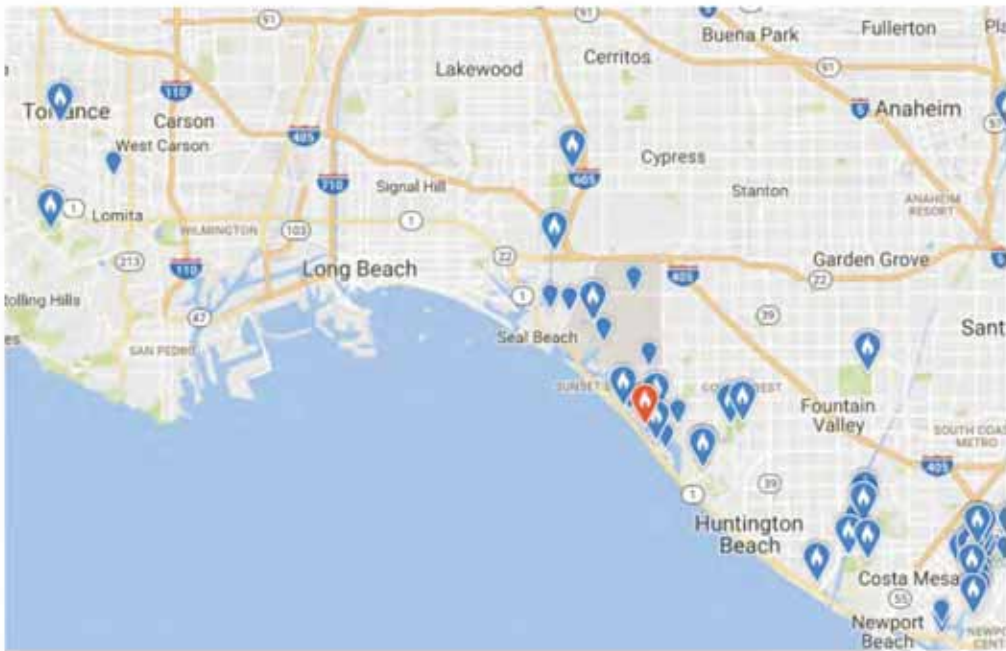
10b-22

The DEIR does not review or analyze any eBird data, and provides no rationale for concluding that the project site lacks potentially suitable nesting habitat for this marsh-nesting species. Northern Harriers do nest, at least occasionally, in coastal marshes in southern California. The eBird map on the following page uses blue and red icons to show reports of Northern Harriers in the local area during the nesting season (May to August) between 2007 and 2017. The map shows that this species does occur in the project vicinity during the nesting season, although it has not recently been documented nesting in this area.

10b-23

Regardless of whether any recent nesting records exist, high-marsh habitat at Steamshovel Slough constitutes potentially suitable nesting habitat for the Northern Harrier, and could also provide foraging habitat for harriers that potentially nest in more expansive marsh habitats at the nearby Seal Beach National Wildlife Refuge.

10b-24



With regard to the Loggerhead Shrike, the DEIR states:

Loggerhead shrike <i>Lanius ludovicianus</i>	Federal: None State: None CDFW: CSC CNDDDB: S4	Broken woodlands, savannah, pinyon-juniper, Joshua tree & riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting with perches for scanning and fairly dense shrubs and brush for nesting.	No suitable habitat within project site.
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10b-25

The 2012 Habitat Assessment Report by Tidal Influence states:

Loggerhead Shrike <i>(Lanius ludovicianus)</i>	Fed: None State: SSC	Breed mainly in shrublands or open woodlands and require tall perches for hunting. Utilize thorny shrubs for impaling prey.	Present: This species has been identified throughout the LCW Complex
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10b-26

CEQA compliance requires that an EIR thoroughly and accurately summarize and analyze the relevant, publicly available information on the status and distribution of special special-status species in the project vicinity. The DEIR falls well short of this standard.

10b-27

Review of DEIR for Los Cerritos Oil Consolidation And Restoration Project
September 6, 2017

Hamilton Biological, Inc.
Page 8 of 8

SUMMARY AND CONCLUSION

The proposed project has great potential to restore ecological functions to an important, but degraded, part of the Los Cerritos Wetlands, including provision of viable habitat for various special-status species not currently found in the local area. In order to achieve the Project Objectives stated in the DEIR, however, the project proponent, the City, and the relevant regulatory agencies must carefully and cautiously manage future recreational, educational, and other public uses of the site. I encourage decision-makers to insist that ecological integrity be paramount in this special area, even if this means disappointing some members of the public eager to explore more of this area than can be safely accommodated without potentially compromising ecological functions.

10b-28

Thank you for your time and consideration. If you have questions, please send e-mail to robb@hamiltonbiological.com or call me at (562) 477-2181.

Sincerely,



Robert A. Hamilton
President, Hamilton Biological, Inc.
<http://hamiltonbiological.com>

attachment: Curriculum Vitae

cc : Mary Parsell, President, El Dorado Audubon Society

Robert A. Hamilton

President, Hamilton Biological, Inc.

Expertise

Endangered Species Surveys
General Biological Surveys
CEQA Analysis
Population Monitoring
Vegetation Mapping
Construction Monitoring
Noise Monitoring
Open Space Planning
Natural Lands Management

Education

1988. Bachelor of Science degree in
Biological Sciences,
University of California,
Irvine

Professional Experience

1994 to Present. Independent
Biological Consultant, Hamilton
Biological, Inc.

1988 to 1994. Biologist, LSA
Associates, Inc.

Permits

Federal Permit No. TE-799557 to
survey for the Coastal California
Gnatcatcher and Southwestern
Willow Flycatcher

MOUs with the California Dept. of
Fish and Game to survey for Coastal
California Gnatcatcher and
Southwestern Willow Flycatcher

California Scientific Collecting
Permit No. SC-001107

Robert A. Hamilton has been providing biological consulting services in southern California since 1988. He spent the formative years of his career at the firm of LSA Associates in Irvine, where he was a staff biologist and project manager. He has worked as an independent and on-call consultant since 1994, incorporating his business as Hamilton Biological, Inc., in 2009. The consultancy specializes in the practical application of environmental policies and regulations to land management and land use decisions in southern California.

A recognized authority on the status, distribution, and identification of birds in California, Mr. Hamilton is the lead author of two standard references describing aspects of the state's avifauna: *The Birds of Orange County: Status & Distribution* and *Rare Birds of California*. Mr. Hamilton has also conducted extensive studies in Baja California, and for seven years edited the Baja California Peninsula regional reports for the journal *North American Birds*. He served ten years on the editorial board of *Western Birds* and regularly publishes in peer-reviewed journals. He is a founding member of the Coastal Cactus Wren Working Group and in 2011 updated the Cactus Wren species account for *The Birds of North America Online*. Mr. Hamilton's expertise includes vegetation mapping. From 2007 to 2010 he worked as an on-call biological analyst for the County of Los Angeles Department of Regional Planning. From 2010 to present he has conducted construction monitoring and focused surveys for special-status bird species on the Tehachapi Renewable Transmission Project (TRTP). He is a former member of the Los Angeles County Significant Ecological Areas Technical Advisory Committee (SEATAC).

Mr. Hamilton conducts general and focused biological surveys of small and large properties as necessary to obtain various local, state, and federal permits, agreements, and clearances. He also conducts landscape-level surveys needed by land managers to monitor songbird populations. Mr. Hamilton holds the federal and state permits and MOUs listed to the left, and he is recognized by federal and state resource agencies as being highly qualified to survey for the Least Bell's Vireo. He also provides nest-monitoring services in compliance with the federal Migratory Bird Treaty Act and California Fish & Game Code Sections 3503, 3503.5 and 3513.

10b-29

Curriculum Vitae for Robert A. Hamilton

Page 2 of 7

Board Memberships, Advisory Positions, Etc.

Coastal Cactus Wren Working Group (2008–present)

Los Angeles County Significant Ecological Areas Technical Advisory Committee (SEATAC) (2010–2014)

American Birding Association; Baja Calif. Peninsula Regional Editor, North American Birds (2000–2006)

Western Field Ornithologists; Associate Editor of Western Birds (1999–2008)

California Bird Records Committee (1998–2001)

Nature Reserve of Orange County; Technical Advisory Committee (1996–2001)

California Native Plant Society, Orange County Chapter; Conservation Chair (1992–2003)

Professional Affiliations

American Ornithologists' Union

Cooper Ornithological Society

Institute for Bird Populations

California Native Plant Society

Southern California Academy of Sciences

Western Foundation of Vertebrate Zoology

Mr. Hamilton is an expert photographer, and typically provides photo-documentation and/or video documentation as part of his services.

Drawing upon a robust, multi-disciplinary understanding of the natural history and ecology of his home region, Mr. Hamilton works with private and public land owners, as well as governmental agencies and interested third parties, to apply the local, state, and federal land use policies and regulations applicable to each particular situation. Mr. Hamilton has amassed extensive experience in the preparation and critical review of CEQA documents, from relatively simple Negative Declarations to complex supplemental and recirculated Environmental Impact Reports. In addition to his knowledge of CEQA and its Guidelines, Mr. Hamilton understands how each Lead Agency brings its own interpretive variations to the CEQA review process.

Representative Project Experience

From 2008 to present, Mr. Hamilton has served as the main biological consultant for the Banning Ranch Conservancy, a local citizens' group opposed to a large proposed residential and commercial project on the 400-acre Banning Ranch property in Newport Beach. Mr. Hamilton reviewed, analyzed, and responded to numerous biological reports prepared by the project proponent, and testified at multiple public hearings of the California Coastal Commission. In September 2016, the Commission denied the application for a Coastal Development Permit for the project, citing, in part, Mr. Hamilton's analysis of biological issues. In March 2017, the California Supreme Court issued a unanimous opinion (*Banning Ranch Conservancy v. City of Newport Beach*) holding that the EIR prepared by the City of Newport Beach improperly failed to identify areas of the site that might qualify as "environmentally sensitive habitat areas" under the California Coastal Act. In nullifying the certification of the EIR, the Court found that the City "ignored its obligation to integrate CEQA review with the requirements of the Coastal Act."

In 2014/2015, on behalf of Audubon California, Mr. Hamilton collaborated with Dan Cooper on *A Conservation Vision for the Los Cerritos Wetlands, Los Angeles County/Orange County, California*. The goals of this

10b-29
(cont.)

Curriculum Vitae for Robert A. Hamilton

Page 3 of 7

Insurance

\$3,000,000 professional liability policy (Hanover Insurance Group)

\$2,000,000 general liability policy (The Hartford)

\$1,000,000 auto liability policy (State Farm)

Other Relevant Experience

Field Ornithologist, San Diego Natural History Museum Scientific Collecting Expedition to Central and Southern Baja California, October/November 1997 and November 2003.

Field Ornithologist, Island Conservation and Ecology Group Expedition to the Tres Marias Islands, Nayarit, Mexico, 23 January to 8 February 2002.

Field Ornithologist, Algalita Marine Research Foundation neustonic plastic research voyages in the Pacific Ocean, 15 August to 4 September 1999 and 14 to 28 July 2000.

Field Assistant, Bird Banding Study, Río Nambí Reserve, Colombia, January to March 1997.

References

Provided upon request.

comprehensive review of ongoing conceptual restoration planning by the Los Cerritos Wetlands Authority were (a) to review the conceptual planning and the restoration work that had been completed to date, and (b) to set forth additional conservation priorities for the more intensive phases of restoration that were being contemplated.

From 2012 to 2014, Mr. Hamilton collaborated with Dan Cooper on *A Conservation Analysis for the Santa Monica Mountains "Coastal Zone" in Los Angeles County*, and worked with Mr. Cooper and the County of Los Angeles to secure a certified Local Coastal Program (LCP) for 52,000 acres of unincorporated County lands in the Santa Monica Mountains coastal zone. The work involved synthesizing large volumes of existing baseline information on the biological resources of the study area, evaluating existing land use policies, and developing new policies and guidelines for future development within this large, ecologically sensitive area. A coalition of environmental organizations headed by the Surfrider Foundation selected this project as the "Best 2014 California Coastal Commission Vote"

(http://www.surfrider.org/images/uploads/2014CCC_Vote_Chart_FINAL.pdf).

In 2010, under contract to CAA Planning, served as principal author of the *Conservation & Management Plan for Marina del Rey, Los Angeles County, California*. This comprehensive planning document has two overarching goals: (1) to promote the long-term conservation of all native species that exist in, or that may be expected to return to, Marina del Rey, and (2) to diminish the potential for conflicts between wildlife populations and both existing and planned human uses of Marina del Rey (to the benefit of humans and wildlife alike). After peer-review, the Plan was accepted by the Coastal Commission as an appropriate response to the varied challenges posed by colonial waterbirds and other biologically sensitive resources colonizing urban areas once thought to have little resource conservation value.

10b-29
(cont.)

Curriculum Vitae for Robert A. Hamilton

Page 4 of 7

Contact Information

Robert A. Hamilton
President, Hamilton Biological,
Inc.
316 Monrovia Avenue
Long Beach, CA 90803
562-477-2181 (office, mobile)
robb@hamiltonbiological.com
<http://hamiltonbiological.com>

Third Party Review of CEQA Documents

Under contract to cities, conservation groups, homeowners' associations, and other interested parties, Mr. Hamilton has reviewed EIRs and other project documentation for the following projects:

- Newport Banning Ranch (residential/commercial, City of Newport Beach)
- Davidon/Scott Ranch (residential, City of Petaluma)
- Mission Trails Regional Park Master Plan Update (open space planning, City of San Diego)
- Esperanza Hills (residential, County of Orange)
- Warner Ranch (residential, County of San Diego)
- Dog Beach at the Santa Ana River Mouth (open space planning, County of Orange)
- Gordon Mull subdivision (residential, City of Glendora)
- The Ranch at Laguna Beach (resort, City of Laguna Beach)
- Sunset Ridge Park (city park, City of Newport Beach)
- The Ranch Plan (residential/commercial, County of Orange)
- Southern Orange County Transportation Infrastructure Improvement Project (Foothill South Toll Road, County of Orange)
- Gregory Canyon Landfill Restoration Plan (proposed mitigation, County of San Diego)
- Montebello Hills Specific Plan EIR (residential, City of Montebello; 2009 and 2014 circulations)
- Cabrillo Mobile Home Park Violations (illegal wetland filling, City of Huntington Beach)
- Newport Hyatt Regency (timeshare conversion project, City of Newport Beach)
- Lower San Diego Creek "Emergency Repair Project" (flood control, County of Orange)
- Tonner Hills (residential, City of Brea)
- The Bridges at Santa Fe Units 6 and 7 (residential, County of San Diego)
- Villages of La Costa Master Plan (residential/commercial, City of Carlsbad)
- Whispering Hills (residential, City of San Juan Capistrano)
- Santiago Hills II (residential/commercial, City of Orange)
- Rancho Potrero Leadership Academy (youth detention facility/road, County of Orange)
- Saddle Creek/Saddle Crest (residential, County of Orange)
- Frank G. Bonelli Regional County Park Master Plan (County of Los Angeles)

10b-29
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Curriculum Vitae for Robert A. Hamilton

Page 5 of 7

Selected Presentations

Hamilton, R. A. Six Legs Good. 2012-2017. 90-minute multimedia presentation on the identification and photography of dragonflies, damselflies, butterflies, and other invertebrates, given at Audubon Society chapter meetings, Irvine Ranch Conservancy, etc.

Hamilton, R. A., and Cooper, D. S. 2016. Nesting Bird Policies: We Can Do Better. Twenty-minute multimedia presentation at The Wildlife Society Western Section Annual Meeting, February 23, 2016.

Hamilton, R. A. 2012. Identification of Focal Wildlife Species for Restoration, Coyote Creek Watershed Master Plan. Twenty-minute multimedia presentation given at the Southern California Academy of Sciences annual meeting at Occidental College, Eagle Rock, 4 May. Abstract published in the Bulletin of the Southern California Academy of Sciences No. 111(1):39.

Hamilton, R. A., and Cooper, D. S. 2009-2010. Conservation & Management Plan for Marina del Rey. Twenty-minute multimedia presentation given to different governmental agencies and interest groups.

Hamilton, R. A. 2008. Cactus Wren Conservation Issues, Nature Reserve of Orange County. One-hour multimedia presentation for Sea & Sage Audubon Society, Irvine, California, 25 November.

Hamilton, R. A., Miller, W. B., Mitrovich, M. J. 2008. Cactus Wren Study, Nature Reserve of Orange County. Twenty-minute multimedia presentation given at the Nature Reserve of Orange County's Cactus Wren Symposium, Irvine, California, 30 April 2008.

Hamilton, R. A. and K. Messer. 2006. 1999-2004 Results of Annual California Gnatcatcher and Cactus Wren Monitoring in the Nature Reserve of Orange County. Twenty-minute multimedia presentation given at the Partners In Flight meeting: Conservation and Management of Coastal Scrub and Chaparral Birds and Habitats, Starr Ranch Audubon Sanctuary, 21 August 2004; and at the Nature Reserve of Orange County 10th Anniversary Symposium, Irvine, California, 21 November.

Publications

Gómez de Silva, H., Villafañá, M. G. P., Nieto, J. C., Cruzado, J., Cortés, J. C., Hamilton, R. A., Vásquez, S. V., and Nieto, M. A. C. 2017. Review of the avifauna of The Tres Marias Islands, Mexico, including new and noteworthy records. *Western Birds* 47:2–25.

Hamilton, R. A. 2014. Book review: The Sibley Guide to Birds, Second Edition. *Western Birds* 45:154–157.

Cooper, D. S., R. A. Hamilton, and S. D. Lucas. 2012. A population census of the Cactus Wren in coastal Los Angeles County. *Western Birds* 43:151–163.

Hamilton, R. A., J. C. Burger, and S. H. Anon. 2012. Use of artificial nesting structures by Cactus Wrens in Orange County, California. *Western Birds* 43:37–46.

10b-29
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Curriculum Vitae for Robert A. Hamilton

Page 6 of 7

- Hamilton, R. A., Proudfoot, G. A., Sherry, D. A., and Johnson, S. 2011. Cactus Wren (*Campylorhynchus brunneicapillus*), in The Birds of North America Online (A. Poole, ed.). Cornell Lab of Ornithology, Ithaca, NY.
- Hamilton, R. A. 2008. Cactus Wrens in central & coastal Orange County: How will a worst-case scenario play out under the NCCP? *Western Tanager* 75:2-7.
- Erickson, R. A., R. A. Hamilton, R. Carmona, G. Ruiz-Campos, and Z. A. Henderson. 2008. Value of perennial archiving of data received through the North American Birds regional reporting system: Examples from the Baja California Peninsula. *North American Birds* 62:2-9.
- Erickson, R. A., R. A. Hamilton, and S. G. Mlodinow. 2008. Status review of Belding's Yellowthroat *Geothlypis beldingi*, and implications for its conservation. *Bird Conservation International* 18:219-228.
- Hamilton, R. A. 2008. Fulvous Whistling-Duck (*Dendrocygna bicolor*). Pp. 68-73 in California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California (Shuford, W. D. and T. Gardali, eds.). Studies of Western Birds 1. Western Field Ornithologists, Camarillo, CA, and California Department of Fish and Game, Sacramento, CA.
- California Bird Records Committee (R. A. Hamilton, M. A. Patten, and R. A. Erickson, editors.). 2007. Rare Birds of California. Western Field Ornithologists, Camarillo, CA.
- Hamilton, R. A., R. A. Erickson, E. Palacios, and R. Carmona. 2001-2007. *North American Birds* quarterly reports for the Baja California Peninsula Region, Fall 2000 through Winter 2006/2007.
- Hamilton, R. A. and P. A. Gaede. 2005. Pink-sided × Gray-headed Juncos. *Western Birds* 36:150-152.
- Mlodinow, S. G. and R. A. Hamilton. 2005. Vagrancy of Painted Bunting (*Passerina ciris*) in the United States, Canada, and Bermuda. *North American Birds* 59:172-183.
- Erickson, R. A., R. A. Hamilton, S. González-Guzmán, G. Ruiz-Campos. 2002. Primeros registros de anidación del Pato Friso (*Anas strepera*) en México. *Anales del Instituto de Biología, Universidad Nacional Autónoma de México, Serie Zoología* 73(1):67-71.
- Hamilton, R. A. and J. L. Dunn. 2002. Red-naped and Red-breasted sapsuckers. *Western Birds* 33:128-130.
- Hamilton, R. A. and S. N. G. Howell. 2002. Gnatcatcher sympatry near San Felipe, Baja California, with notes on other species. *Western Birds* 33:123-124.
- Hamilton, R. A. 2001. Book review: The Sibley Guide to Birds. *Western Birds* 32:95-96.
- Hamilton, R. A. and R. A. Erickson. 2001. Noteworthy breeding bird records from the Vizcaino Desert, Baja California Peninsula. Pp. 102-105 in Monographs in Field Ornithology No. 3. American Birding Association, Colorado Springs, CO.
- Hamilton, R. A. 2001. Log of bird record documentation from the Baja California Peninsula archived at the San Diego Natural History Museum. Pp. 242-253 in Monographs in Field Ornithology No. 3. American Birding Association, Colorado Springs, CO.
- Hamilton, R. A. 2001. Records of caged birds in Baja California. Pp. 254-257 in Monographs in Field Ornithology No. 3. American Birding Association, Colorado Springs, CO.

10b-29
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Curriculum Vitae for Robert A. Hamilton

Page 7 of 7

- Erickson, R. A., R. A. Hamilton, and S. N. G. Howell. 2001. New information on migrant birds in northern and central portions of the Baja California Peninsula, including species new to Mexico. Pp. 112–170 in *Monographs in Field Ornithology* No. 3. American Birding Association, Colorado Springs, CO.
- Howell, S. N. G., R. A. Erickson, R. A. Hamilton, and M. A. Patten. 2001. An annotated checklist of the birds of Baja California and Baja California Sur. Pp. 171–203 in *Monographs in Field Ornithology* No. 3. American Birding Association, Colorado Springs, CO.
- Ruiz-Campos, G., González-Guzmán, S., Erickson, R. A., and Hamilton, R. A. 2001. Notable bird specimen records from the Baja California Peninsula. Pp. 238–241 in *Monographs in Field Ornithology* No. 3. American Birding Association, Colorado Springs, CO.
- Wurster, T. E., R. A. Erickson, R. A. Hamilton, and S. N. G. Howell. 2001. Database of selected observations: an augment to new information on migrant birds in northern and central portions of the Baja California Peninsula. Pp. 204–237 in *Monographs in Field Ornithology* No. 3. American Birding Association, Colorado Springs, CO.
- Erickson, R. A. and R. A. Hamilton, 2001. Report of the California Bird Records Committee: 1998 records. *Western Birds* 32:13–49.
- Hamilton, R. A., J. E. Pike, T. E. Wurster, and K. Radamaker. 2000. First record of an Olive-backed Pipit in Mexico. *Western Birds* 31:117–119.
- Hamilton, R. A. and N. J. Schmitt. 2000. Identification of Taiga and Black Merlins. *Western Birds* 31:65–67.
- Hamilton, R. A. 1998. Book review: Atlas of Breeding Birds, Orange County, California. *Western Birds* 29:129–130.
- Hamilton, R. A. and D. R. Willick. 1996. The Birds of Orange County, California: Status and Distribution. Sea & Sage Press, Sea & Sage Audubon Society, Irvine.
- Hamilton, R. A. 1996–98. Photo Quizzes. *Birding* 27(4):298–301, 28(1):46–50, 28(4):309–313, 29(1): 59–64, 30(1):55–59.
- Erickson, R. A., and Hamilton, R. A. 1995. Geographic distribution: *Lampropeltis getula californiae* (California Kingsnake) in Baja California Sur. *Herpetological Review* 26(4):210.
- Bontrager, D. R., R. A. Erickson, and R. A. Hamilton. 1995. Impacts of the October 1993 Laguna fire on California Gnatcatchers and Cactus Wrens. in J. E. Keeley and T. A. Scott (editors). *Wildfires in California Brushlands: Ecology and Resource Management*. International Association of Wildland Fire, Fairfield, Washington.
- Erickson, R. A., R. A. Hamilton, S. N. G. Howell, M. A. Patten, and P. Pyle. 1995. First record of Marbled Murrelet and third record of Ancient Murrelet for Mexico. *Western Birds* 26: 39–45.
- Erickson, R. A., and R. A. Hamilton. 1993. Additional summer bird records for southern Mexico. *Euphonia* 2(4): 81–91.
- Erickson, R. A., A. D. Barron, and R. A. Hamilton. 1992. A recent Black Rail record for Baja California. *Euphonia* 1(1): 19–21.

10b-29
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Responses to Comment Letters 10a and 10b

Response 10a-1

The comment is an email transmittal letter from Robb Hamilton of Hamilton Biological, Inc., submitting a comment letter as a PDF on behalf of El Dorado Audubon Society.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 10b-1

The comment is an introductory statement regarding the submittal of comments on the Draft EIR on behalf of El Dorado Audubon Society by Hamilton Biological, Inc. The introductory statement describes Mr. Hamilton's credentials and refers to his curriculum vitae, which is attached.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 10b-2

The comment describes the Synergy Oil Field site as containing only a small fragment of the historical Los Cerritos Wetlands, and that the proposed project has the potential to restore ecological function to this key portion that has been subject to oil drilling.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 10b-3

The comment states the position of the El Dorado Audubon Society of the importance of balancing the competing interests of habitat restoration with educational/recreational uses at the Synergy Oil Field site.

The City concurs with Mr. Hamilton that the restoration of native saltmarsh habitat should be given priority and must be balanced against recreational and educational functions. Nevertheless, as evidenced by the Project Objectives, the City believes that when designed properly and executed appropriately these uses can coexist. The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 10b-4

The comment expresses concern that the potential for future recreational uses at the Synergy Oil Field site could diminish the ecological integrity of the existing habitat and the habitat to be created by the proposed project. The comment urges that in undertaking habitat restoration all feasible precautions should be taken to ensure the success of the restoration.

As evidenced by the Project Objectives, the City believes that when designed properly and executed appropriately the competing uses of restoration of native saltmarsh habitat and recreational functions can coexist. The project proposes a new Studebaker Trail such that public use of a small portion of the site will be available to hikers. Although the project proposes bicycle lanes on the adjacent streets, there will be no bikers or kayakers accommodated on the site; however, it should be noted that kayakers have been observed entering

Steamshovel Slough from the Los Cerritos Channel. Bicyclists who enter the site from 2nd Street will be required to park their bicycles in dedicated bicycle parking racks located within the parking lot. There will be no bicycle access permitted at the picnic tables or on any part of the trail. Signage will make this restriction clear. With respect to picnickers, approximately six to eight picnic tables are proposed in a small grouping near the initial segment of the Studebaker Trail from the parking lot; however, this area will be designated for use only as determined by the LCWA. Draft EIR Figure 2-18, Visitors Center, has been revised to show a more accurate depiction of this proposed project component and is included in Chapter 10, *Draft EIR Revisions*. With LCWA as the land manager of the restoration area and operator of the visitors center, a schedule will be established that outlines hours of operation and access to amenities such as the Studebaker Trail and picnic tables.

Response 10b-5

The comment recommends that all of the plants installed by the project should be native to Long Beach, and would be consistent with the Project Objectives. The comment expresses concerns regarding exotic landscape species depicted in the Draft EIR figures.

The plant selection for the Restoration Plan are consistent with native habitat restoration and the overwhelming majority of these plants are actually found on site. For those areas around the proposed visitors center, because habitat restoration is not the primary objective, non-invasive vegetation was the primary concern. However, in the full spirit of the habitat restoration work occurring in the northern portion of the site, the plant palette for all revegetated and landscaped areas on the Synergy Oil Field site will consist only of locally native species.

Response 10b-6

The comment expresses concern regarding the depiction in Draft EIR Figure 2-18, Visitors Center, and in cited text regarding the establishment of green areas and picnic facilities and overlook terrace with turf and numerous picnic tables.

Draft EIR Figure 2-18 has been revised to show a more accurate depiction of this proposed project component, and the landscaping palette revised to focus on native vegetation and is included in Chapter 10, *Draft EIR Revisions*. The green area that is in the artist's rendering is not intended to be turf but would be a mix of gravel (decomposed granite) and native vegetation when implemented. Approximately six to eight picnic tables are proposed in a small grouping near the initial segment of the Studebaker Trail from the parking lot; however, this area will be designated for use only as determined by the LCWA. The public use areas are not intended to function as a park. With LCWA as the land manager of the restoration area and operator of the visitors center, a schedule will be established that outlines hours of operation and access to amenities such as the Studebaker Trail and picnic tables.

Response 10b-7

The comment expresses concerns regarding the incompatibility of “green areas and picnic tables” to the restored wetlands, and that picnicking activities if not controlled would increase the potential for predators with the introduction of food and trash to the restored wetlands.

The public use areas are not intended to function as a park. The project proposes one small grouping of approximately six to eight picnic tables located near the initial segment of the trail from the parking lot. These

tables will be designated for use only as pre-determined by the LCWA and can be viewed as an outdoor “classroom” area in addition to a space for eating. A schedule will be established that outlines hours of operation and access to amenities such as the Studebaker Trail and picnic tables. Signs will be posted at the trailhead restricting food of any kind on the Studebaker Trail and enclosed trash receptacles will only be provided at the picnic tables. The picnic tables will not be accessible to the public outside of designated hours of operations and it will be the LCWA’s responsibility to ensure that the area is properly cleaned up, trash disposed of and collected, every day of operation. Providing a small designated area for people to gather, listen, learn, and eat does not diminish the ability for the objective of habitat restoration to be carried out. Rather, it promotes the ability for the “Public Access and Educational Opportunities” objective to be met concurrently with the others. As with many facilities, should a problem arise as to the maintenance of the visitor serving area such that predators are brought to the site, adaptive management protocols can be implemented to ensure greater protection for the restored habitat.

Response 10b-8

The comment expresses concerns regarding the picnic facilities that are depicted, and recommends that the green space be planted with appropriate native plants.

Refer to Responses 10b-6 and 10b-7.

Response 10b-9

The comment cites text from the Draft EIR describing use of the Steamshovel Slough by recreational kayakers and boaters. The comment also states that the Draft EIR’s description of kayakers gives the impression of frequent use, but in reality such use is sporadic and occasional. Kayaking is not allowed in other larger wetlands restoration areas, and the comment questions why it is allowed here. The comment requests a more precise description of kayaking activities and what is proposed.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, there is no intent for the project, nor the future mitigation bank, to establish a kayaking program through Steamshovel Slough. Currently, kayakers who enter the site do so by means of trespassing from the Los Cerritos Channel and gliding over the existing trash boom that spans the entire mouth of Steamshovel Slough. This activity is sporadic and should not be considered an existing recreational amenity. As it is an existing condition, and is not proposed for expansion by the project, the recreational activity is not a component of the project that requires evaluation in the Draft EIR. With public access provided through the visitors center and Studebaker Trail, the public will have access to the Steamshovel Slough for viewing purposes. The project does not propose any physical barriers to the Steamshovel Slough from the Los Cerritos Channel; however, signage at the mouth of the Slough could be installed if kayaking activity is determined to be disruptive to the restored habitat.

Response 10b-10

The comment recommends that kayaking be prohibited or severely limited.

Refer to Response 10b-9.

Response 10b-11

The comment expresses concern regarding the level of detail regarding the Draft EIR's treatment of special status species and biological resources. The comment states that the Draft EIR either misreports or fails to discuss in detail the local status of several special status species including some identified in the Habitat Assessment Report dated August 31, 2012, prepared by Tidal Influence. The City's Draft EIR specifically consulted Appendix A to the Habitat Assessment Report dated August 31, 2012, prepared by Tidal Influence for both common floristic elements as well as special-status plants.

The Draft EIR's mapping of special-status plants, for example southern tarplant, is far more detailed and comprehensive than mapping depicted on Figures 6a and 6b of the referenced Tidal Influence report from 2012. Surveys for special-status plants were conducted during 2015 and 2016 as reflected in the Biological Technical Report and Draft EIR, and again in 2017.⁶ This survey data is far more detailed than the mapping provided by the Tidal Influence. The author of the Biological Technical Report used by the Lead Agency believes that Calflora and eBird are useful tools and are regularly consulted for distribution and occurrence data for special-status plants and animals. However, the author notes that there are no occurrences of Coulter's goldfields mapped on Calflora's "interactive map" within the larger Los Cerritos Wetlands complex meaning that the data in Calflora, while useful as far as it goes, is not comprehensive. Similarly, eBird has over the recent years been improved significantly and has become more dependable as a source of occurrence data; nevertheless, it is only one tool among many which was utilized by the technical consultant and the City's EIR consultant when preparing the Biological Technical Report.

Response 10b-12

The comment references text from Draft EIR p. 3.3-17 regarding Coulter's Goldfield. The comment references recorded presence of Coulter's goldfields on the Hellman Property site close to the project site.

The authors of the Biological Technical Report have mapped Coulter's goldfields on the Hellman property, referenced by Mr. Hamilton, in 2004 and are familiar with the species. Given the biological consultant's familiarity with this plant, the extensive survey time on the Synergy Oil Field site, and because this species was not identified on the project site during focused botanical surveys for the Synergy Oil Field site in 2015 and 2016, this species was identified as "not detected during surveys" and was not further evaluated in the biological impact analysis. It is also important to note that Figure 6a does not depict this species, and all documented populations in the area are shown on the Hellman Property site as shown in Figure 6b.

Response 10b-13

The comment provides additional information regarding the location of Coulter's goldfields on the Hellman Property site, which is located in Seal Beach and is not part of the proposed project.

The condition of the specific location at the Hellman Property site is noted but does not inform the conditions on the Synergy Oil Field site, specifically because there is no disking on the Synergy property, and more importantly because of the exhaustive survey efforts for special-status plants on the Synergy Oil Field site, in particular.

⁶ Surveys in 2017 were conducted by Tony Bomkamp and April Nakagawa of Glenn Lukos Associates on June 1, 12, and 29 in 2017 to obtain up-to date counts on southern tarplant from the impacts areas identified in the Biological Technical Report.

Response 10b-14

The comment provides additional information regarding the location of Coulter's goldfields on the Hellman Property site.

As noted, the authors of the Biological Technical Report have spent extensive time on the site over three years, and Coulter's goldfields was not detected and, therefore, would not be affected by the project. Portions of the site contain potential habitat as noted by the comment, and in fact, this species has been included within the plant palette for the Coastal Salt Marsh transition zone of the Wetland Restoration Plan.

Response 10b-15

The comment notes that the Draft EIR states the absence of the Crotch Bumblebee due to the lack of suitable habitat. The comment restates information provided in the Draft EIR.

Refer to Response 10b-17.

Response 10b-16

The comment states that the species was recorded at the Carpinteria Salt Marsh in Santa Barbara County. The comment provides information regarding a siting of the species in Santa Barbara County.

Refer to Response 10b-17.

Response 10b-17

The comment notes that the habitat at the Carpinteria Salt Marsh is similar to the Steamshovel Slough and asks on what basis the site does not contain suitable habitat for the Bumblebee.

The International Union for the Conservation of Nature (IUCN) website lists the habitat for this species as:

Bombus crotchii inhabits open grassland and scrub habitats. Nesting occurs underground. Males perch and chase moving objects in search of mates. This species is classified as a short-tongued species, whose food plants include *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014).⁷

The Range descriptions that were reviewed included desert and foothill areas and did not specifically mention salt marsh as typical habitat. Combined with the habitat requirements on the IUCN website, the determination that suitable habitat is not present was an appropriate finding. The discovery of this species at the Carpinteria Salt Marsh, suggests that Steamshovel Slough may contain suitable habitat; however, given that impacts to Steamshovel Slough are limited to the berm along the edge of the slough to provide tidal connections, the potential for impacts to this species are very low. It should also be noted that of the food plants mentioned, none occur within Steamshovel Slough and the plant pictured from Carpinteria Salt Marsh, salt marsh bird's beak (*Chloropyron maritimum* sp. *maritimum*), does not occur within Steamshovel Slough, further reducing the potential for this species to occur.

⁷ <http://www.iucnredlist.org/details/44937582/0>

Response 10b-18

The comment notes that the Draft EIR states the absence of the red diamond rattlesnake due to the lack of suitable habitat. The comment restates information provided in the Draft EIR.

Refer to Response 10b-19.

Response 10b-19

The comment cites the 2012 report by Tidal Influence that the red diamond rattlesnake has been recorded in the Los Cerritos Wetlands.

As noted in the Biological Technical Report, suitable habitat for this species consists of:

Chaparral, woodland, grassland, and desert areas from coastal San Diego county to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.

As such, there is no suitable habitat within the project sites for this species. The comment is correct in that the origin of the red diamond rattlesnake is not known and there is a high likelihood that the species was introduced to the site. Given that there is no suitable habitat, there would be no potential impacts to this species.

Response 10b-20

The comment notes that the Draft EIR states the absence of the Black Skimmer as it has not been observed and has a low potential to occur. The comment restates information provided in the Draft EIR.

Refer to Response 10b-21.

Response 10b-21

The comment replicates information from the 2012 Habitat Assessment Report prepared by Tidal Influence regarding the Black Skimmer.

The Tidal Influence Report and comment are correct that suitable foraging habitat occurs within the open water areas of Steamshovel Slough, but does not occur on the other properties, including the City Property, Pumpkin Patch, or LCWA sites. While the open water areas of Steamshovel Slough provide suitable foraging habitat for this species, suitable breeding habitat is absent. Furthermore, the open water areas associated with Steamshovel Slough would not be impacted by the project. Given the lack of suitable breeding habitat, the proposed restoration project exhibits no potential for impacts to this species.

Response 10b-22

The comment replicates information from Draft EIR p. 3.3-82 regarding the Northern Harrier. The comment restates information provided in the Draft EIR.

Refer to Response 10b-24.

Response 10b-23

The comment states that no rationale is provided in the Draft EIR for concluding that the project site lacks potentially suitable nesting habitat for this species. The comment cites information from the eBird map that shows reports of this species in the local area between 2007 and 2017.

Refer to Response 10b-24.

Response 10b-24

The comment states its belief that high marsh habitat at Steamshovel Slough constitutes potentially suitable nesting habitat for the Northern Harrier.

It was noted in the Biological Technical Report and the Draft EIR that suitable foraging habitat is associated with Steamshovel Slough. As far as potential nesting habitat in the Biological Technical Report, the Report stated:

The northern harrier is now one of the rarest nesting raptors in southwestern California. Characteristically, this hawk inhabits marshlands, both coastal salt and freshwater, but often forages over grasslands and fields, requiring open habitats for foraging. Northern harriers have occasionally been observed foraging on the site. There have been no records of nesting on the site; **however, there are potentially suitable areas for nesting in some of the higher areas of Steamshovel Slough;** nevertheless, impacts to this species are not expected to occur with the proposed project. [Emphasis added]

Suitable habitat may occur within limited portions of Steamshovel Slough. Nevertheless, the proposed restoration project exhibits no potential for impacts to this species and importantly, grading for the restoration project including areas adjacent to the slough will occur outside the breeding season ensuring that no impacts occur to any nesting avifauna.

Response 10b-25

The comment replicates information from the Draft EIR regarding the Loggerhead Shrike.

Refer to Response 10b-26.

Response 10b-26

The comment cites the 2012 report by Tidal Influence that the Loggerhead Shrike has been “identified throughout the LCW Complex.”

The Draft EIR and the Tidal Influence report that typical habitat for the loggerhead shrike is:

Broken woodlands, savannah, pinyon-juniper, Joshua tree and riparian woodlands, desert oases, scrub, and washes. Prefers open country for hunting with perches for scanning and fairly dense shrubs and brush for nesting. [*Draft EIR*]

Breed mainly in shrublands or open woodlands and require tall perches for hunting. Utilize thorny shrubs for impaling prey. [*Tidal Influence*]

During numerous survey visits, biologists did not observe loggerhead shrike on any of the properties; nevertheless, the City concurs that suitable foraging habitat is present. Suitable nesting habitat is limited to areas with shrubs and would include areas of mulefat scrub (that will be enhanced as part of the Restoration

Plan) in the upland areas east of Steamshovel Slough and areas of mulefat scrub on the City Property site. Nevertheless, grading for the project would occur outside of the nesting season and there is no potential impact to this species from the project.

Response 10b-27

The comment restates that CEQA compliance requires a thorough and accurate summary and analysis of relevant information on the status and distribution of special status species in the project vicinity.

The City concurs with the comment that potential foraging habitat for the black skimmer occurs on the site and that potential breeding habitat for the northern harrier exhibits potential for occurring in the limited areas of high marsh in Steamshovel Slough. Finally, the City concurs that suitable foraging habitat for the loggerhead shrike may occur within the Synergy Oil Field and City Property sites. As noted in the responses associated with these species, they would not be impacted by grading activities. Based on review of all available data and hundreds of hours surveying the project sites, the information and analysis provided in the Draft EIR and the supporting Biological Technical Study provide the substantial evidence in the City's administrative record to support the conclusions reached in the Draft EIR and the adequacy of its analysis that meet CEQA review standards.

Response 10b-28

The comment states that the project has great potential to restore ecological functions to a degraded portion of the Los Cerritos Wetlands, but notes that the reviewing agencies must manage future recreational, educational and other public uses to avoid compromising ecological functions.

The City would agree that the project has the potential to restore ecological functions to this portion of the Los Cerritos Wetlands, and that the project has been designed to balance the competing uses of public access against habitat restoration and protection. The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 10b-29

The comment has included the curriculum vitae of Robert Hamilton.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.3.4 Long Beach Citizens for Fair Development (LBCFD), September 6, 2017

Comment Letters 11a and 11b

Comment Letter 11a

Subject: FW: Attached comments on DEIR for Los Cerritos Wetlands DEIR Los Cerritos Wetlands Oil Consolidation SCH # 2016041083

From: Warren Blesofsky [<mailto:warrenblesofsky@gmail.com>]

Sent: Wednesday, September 06, 2017 4:16 PM

To: Craig Chalfant <Craig.Chalfant@longbeach.gov>

Cc: Charles Parkin <Charles.Parkin@longbeach.gov>; Michael Mais <Michael.Mais@longbeach.gov>; Christopher Koontz <Christopher.Koontz@longbeach.gov>

Subject: Attached comments on DEIR for Los Cerritos Wetlands DEIR Los Cerritos Wetlands Oil Consolidation SCH # 2016041083

Dear Mr. Chalfant -

Please find the attached 2 page letter.

Thank you

Warren Blesofsky
Cell 714-745-5577
Toll-free 888-716-1516
Fax 888-716-1556

<Land Swap EIR Problems.pdf>

11a-1

Comment Letter 11b

RE: DEIR Los Cerritos Wetlands Oil Consolidation SCH # 2016041083

Submitted by: Long Beach Citizens for Fair Development

Contact Warren Blesofsky, warrenblesofsky@gmail.com, 714-745-5577

Land Swap EIR Problems

1. The is a drilling plan not a restoration plan. It envisions doubling oil production for the next 14-40+ years. 11b-1
2. The Los Cerritos Watershed management group's studies and authority is not adequately acknowledged in the DEIR 11b-2
3. The 10 foot block wall along Studebaker and Westminster is bad for biological habitat and aesthetics Does not conform to SEADIP A12 "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. " 11b-3
4. The pipelines connecting the pumpkin patch and LCWA parcel is across a fault zone, fault line with unacceptable mitigation. Developer feasibility just means they make more profit and is not a sufficient overriding consideration. The two parcels should not be tied together with aboveground pipelines. 11b-4
5. Clean Water Act - The entire project, drilling on the westlands, is a violation of the Clean Water Act. The clean water act is not sufficiently contemplated in the DEIR. Even if the Trump rollback of the "waters of america" definition goes through the LCW will still clearly be part of the CWA. 11b-5
6. Contamination of the existing soils. The DEIR does not adequately call for sampling and core sampling of the LCW areas that have been exposed to petroleum by products for over 75 years. The DEIR does not adequately contemplate the conventional wisdom that thousands of tons of contaminated soil will have to be removed for proper restoration. 11b-6
7. The Developers pipe dream. All the previous owners have sold these parcels with the knowledge that the vast majority of the oil has already been removed. If this is a pipe-dream by Synergy/Beach Oil then all this drilling may be effectuated without any economic benefit. What happens then, when Synergy goes bankrupt? The people of Long Beach and Seal Beach get left with a huge mess of near superfund-sized proportions. The Developer should be able to demonstrate through seismic and other studies that there is actually recoverable oil in the project site. 11b-7
8. The DEIR proposes burning of captured methane on-site. This is unacceptable to burn captured carbon on the wetlands habitat. A proper mitigation would be that these operation are powered by solar. 11b-8
9. The proposed buildings of warehouses and offices. Even if the lead agencies allow this drilling plan to go forward, Multi-story office buildings and warehouse buildings should not be built on the wetlands parcels, pumpkin patch and LCWA parcels. 11b-9
10. Cumulative Impacts. The cumulative effects of all the recent and proposed development in the area are not adequately contemplated in the DEIR. Projects proposed or approved 11b-10

- include AES Generating Station, AES Battery Towers, 2nd & PCH development and this Land Swap Oil Drilling Plan.
11. LCWA legal authority. The LCWA parcel (the 5.1 acre parcel) may not be allowed to be "swapped." Per the terms of the consent decree in *Don May et al v. So. Cal. Edison* the Coastal Conservancy or successor could sell the parcel and any proceeds in excess of \$1.8 million are owed to So. Cal Edison. The DEIR does not adequately contemplate the lack of authority of LCWA to swap this parcel.
 12. Using Steamshovel Slough as the basis for a mitigation land bank violates the Public Trust Doctrine, a legal principle that states tidelands and waterways cannot be monopolized by private parties and cannot be bought and sold like other state-owned lands.
 13. EPA guidance if for a "Watershed approach" to wetlands Restoration US EPA, 2002. The DEIR does not adequately consider these EPA rules.
 14. The DEIR does not adequately consider that the San Gabriel and Los Cerritos are two distinct watersheds. The LC watershed has distinct freshwater areas above the tidal prism that are not adequately considered in the DEIR.
 15. Floodplain - Especially in light of Hurricane Henry on Houston area oil production the DIER does not adequately contemplate or have adequate mitigation measure for the investable flooding of this area and the accompanying toxic hazards from inundated oil operation.
 16. DEIR does not adequate contemplate or mitigate are Stormwater and pollution control.
 17. The project is inconsistent with the California Coastal Act mission for preservation and public access to local coastal resources. The DEIR does not adequately consider or mitigate for the CCA.
 18. The SEADIP 4a plan calls for "The developer must first develop wetlands on all areas designated for wetlands, which are not encumbered, by active oil operations and/or leases." This project and DEIR do not conform to this requirement.
 19. SEADIP A11" Public access shall be provided to and along the boundaries of all public waterways as provided for in the wetlands restoration plan." This project and DEIR do not conform to this requirement.
 20. The Local Coast plan adopted in 1980 states: "It is recognized that certain resource areas in this jurisdiction will require further public attention to ensure such protection and enhancement. Included in this concern are.....(c) sensitive coastal resource areas which are suffering some form of deterioration of development pressure (d) degraded or less than pristine wetlands of any size." The LCP is the Resources Management Plan for the area and therefore is THE plan that must be followed under the coastal Act of 1976. This project and DEIR do not conform to this requirement.

Respectfully Submitted this 6th day of September 2017.

Responses to Comment Letters 11a and 11b

Response 11a-1

This comment is an email transmittal letter from Warren Blesofsky submitting a comment letter as a PDF attachment.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 11b-1

The comment states that this project is a drilling plan not a restoration plan. It envisions doubling oil production for the next 14 to 40 years.

The project is both a wetlands restoration plan and an oil consolidation plan. There are currently oil wells on both the Synergy Oil Field and City Property sites, which together comprise 183 acres. The project proposes the phased removal of 53 wells from these two properties and consolidating the oil operations on two much smaller properties: 5 acres of the 7-acre Pumpkin Patch site and the 5-acre LCWA site. Thus, with project implementation the acreage of land that will have oil production on it will be reduced from 183 acres to 10 acres. Although the overall number of wells increases from 53 wells to 120 wells (which include both oil and water source and water injection wells), the footprint of oil operations will be significantly consolidated from 183 acres to 10 acres. In connection with the phased removal of the oil operations from the southern 74 acres of the Synergy Oil Field site, approximately 76 acres of the Synergy Oil Field site will be restored as wetlands in accordance with a restoration plan approved by the Interagency Review Team consisting of representatives from state and federal resources agencies, such as the U.S. Fish and Wildlife Service, the U.S. Army Corp of Engineers, the California Coastal Commission, and the California Department of Fish and Wildlife.

Response 11b-2

The comment states that the “Los Cerritos Watershed management group’s” studies and authority is not adequately acknowledged in the Draft EIR.

The City believes that the reference to the “Los Cerritos Watershed management group” is a reference to the Los Cerritos Wetlands Authority (LCWA), which holds title to the 5-acre LCWA site. The LCWA, its history, ownership of the LCWA site, and its conceptual restoration plan are described in Draft EIR Chapter 2, *Project Description*, starting on p. 2-5. Two of the Project Objectives are directed to helping LCWA accomplish its mission. One of the Project Objectives concerns assisting the LCWA 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.” A second Project Objective is directed to help implement the Los Cerritos Wetlands Conceptual Restoration Plan. Providing for consistency with the Los Cerritos Wetlands Conceptual Plan is also one of the factors that the project and alternatives to the project were evaluated against. For example, Alternative 5 was identified as the environmentally superior alternative. As discussed in Draft EIR Chapter 5, *Alternatives*, p. 5-56, this alternative was evaluated for its consistency with the Los Cerritos Wetlands Conceptual Restoration Plan. Finally, LCWA’s role as a landowner and decision-maker was recognized in Draft EIR Chapter 2, *Project Description*, on p. 2-74. In conclusion, LCWA’s role as landowner and decision-maker with respect to the proposed land exchange, its role as a future

manager of the wetlands, and the importance of its Conceptual Plan is discussed throughout the document. Two of the Project Objectives were directed specifically to LCWA. Taken together, the Draft EIR acknowledges the important role of LCWA in the proposed project.

Response 11b-3

The comment states that the 10-foot block wall along Studebaker and Westminster is bad for biological habitat and aesthetics. The comment states that this wall does not conform to SEADIP policy A-12 regarding maintaining and enhancing public views to water areas and public open spaces.

The City interprets the comment as referring to the perimeter wall that is proposed to be constructed along the Studebaker and Westminster edges of the 5-acre LCWA site. The impacts of constructing the wall and maintaining the wall during project implementation was addressed throughout the Draft EIR. As to the two environmental impacts raised in the comment, the aesthetic impacts of the wall were addressed in Draft EIR Section 3.1, *Aesthetics*. For example, Figure 3.1-8, View 5: View from Studebaker Road Looking East toward the Los Cerritos Wetlands Authority (LCWA) Site, and Figure 3.1-9, View 6: View from Westminster Avenue (2nd Street) Looking North toward the Los Cerritos Wetlands Authority (LCWA) Site, depict visual simulations of the existing conditions, and future conditions after construction of the wall. The biological impacts of development of the LCWA site for oil operations were examined in Draft EIR Section 3.3, *Biological Resources*. The analysis contained in the Biological Resources section addressed the sensitive species that have the potential to be present on the LCWA site and concluded that potential impacts to nesting birds and raptors would be avoided and minimized by the project through mitigation, that the LCWA site contains no sensitive natural communities affected by project development, and that there are no jurisdictional waters or wetlands on the LCWA site that would be impacted by the project.

Lastly, the comment questions the project's consistency with SEADIP Policy A-12. SEADIP Policy A-12 states: "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." Currently the LCWA site is fenced off and does not provide public views to water areas or public open spaces. The LCWA site lies adjacent to the AES Generating Station and property owned by Plains All American Pipeline—both of which are industrial uses with large tank and tower structures that block views of the San Gabriel River. Development of the project would not otherwise obstruct a view of water and open space that is currently provided under existing conditions. The project, however, as whole will provide and enhance views to water areas and public open spaces by removing 90 percent of existing oil production facilities in wetlands, restoring wetlands on the Synergy Oil Field site, constructing a new Studebaker Trail that enhances views of the habitat and open space, and constructing new bike lanes. Thus, the project is consistent with Policy A-12.

Response 11b-4

This commenter states that the pipelines connecting the Pumpkin Patch and LCWA sites would be placed across a fault zone and that the proposed mitigation is unacceptable.

As explained in Draft EIR Section 3.5, *Geology, Seismicity, and Soils*, under Impact GEO-1, p. 3.5-31, the Applicant conducted a study to identify 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 to be

accommodated by sliding on the aboveground supports and accommodate relative axial displacement through flexure of bends in the pipeline. In addition, the pipeline would have stress loops, pressure gauges, automatic shutoff devices, alarms, and valves at specific distances, as required by DOGGR, which would shut the pipeline system 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.

The comment is correct that a pipeline that runs from the Pumpkin Patch site to the LCWA site is proposed as part of the project. A pipeline is needed because there is very limited storage capacity on the Pumpkin Patch site. Without the pipeline, the Pumpkin Patch oil facilities would have to be redesigned to accommodate a larger storage tank and its own production facilities instead of sharing facilities as proposed by the project. This would require additional space, particularly on the Pumpkin Patch site, and would require development of the entire 7 acres, instead of just 5 acres, and would have greater impacts on the habitat that the project avoids on the Pumpkin Patch site. Further, the produced oil would have to be trucked offsite; thus, increasing traffic impacts (and air quality and noise impacts associated with increased traffic). The impacts of eliminating the pipeline were addressed in Chapter 5, *Alternatives*, specifically Draft EIR Section 5.3.5, No Pipeline Alternative, p. 5-5. Because of these additional impacts that would result from eliminating the pipeline, the project with a pipeline connecting the two sites was proposed. Although the pipeline does cross the fault line, the potential impacts were addressed and mitigated and were determined to be less than significant.

Response 11b-5

The comment states that the entire project is a violation of the Clean Water Act, and that the Clean Water Act is not sufficiently contemplated in the Draft EIR.

Draft EIR Section 3.3, *Biological Resources*, p. 3.3-49, describes the regulatory requirements of the Clean Water Act and recognizes the regulatory importance of the federal Clean Water Act. In addition, as described further on pp. 3.3-37 and 3.3-38, a jurisdictional delineation was conducted of all four sites to evaluate and identify the presence of waters of the United States as defined by the Clean Water Act. The comment notes that the federal definition of “waters of the U.S.” was established by federal rulemaking. The most recent definition of “waters of the U.S.” has been the subject of litigation, and its implementation suspended by the federal courts. The U.S. Army Corps of Engineers (the Corps) and the Environmental Protection Agency (EPA) issued their new definition of “waters of the U.S.” (or WOTUS) on June 29, 2015. The new rule was to have become effective on August 28, 2015. <http://www.epa.gov/sites/production/files/2015-06/documents/epa-hq-ow-2011-0880-20862.pdf>. However, even before the new rule could take effect, a number of cases challenging the rule were filed; many by states that claimed that the rule exceeded the scope of the Clean Water Act. On August 27, 2015, the federal district court in North Dakota suspended the application of the rule in thirteen (13) western states. (California was not one of the plaintiff states.) This was soon followed by a decision from the Sixth Circuit Court of Appeal arising out of a challenge brought by eighteen (18) other midwest and southern states which suspended the rule nationwide. The Corps and EPA agreed to abide by the federal court stay and the current definition of “waters of the U.S.” adopted in 1984 remains the operative definition under the federal Clean Water Act.

The project does not propose any drilling of new oil wells in wetlands. In connection with preparation of the Draft EIR, a jurisdictional delineation was prepared which identified the areas in which habitat meeting the definition of “waters of the U.S.” was identified. This information was set forth and described in Draft EIR

Section 3.3, *Biological Resources*. There are no wetlands or waters of the U.S. on either the Pumpkin Patch or LCWA sites where the new oil operations are proposed. Although, there are potential “waters of the U.S.” on the Pumpkin Patch site as shown in Draft EIR Figure 3.3-7, Pumpkin Patch Site—Jurisdictional Delineation Map, p. 3.3-46, that area will be avoided by the project. The majority of “waters of the U.S.” on the Synergy Oil Field site is located in the area of Steamshovel Slough as shown in Draft EIR Figure 3.3-3, Synergy Oil Field Site—Waters of the U.S./State, p. 3.3-39. There are currently no oil operations in the area of the Steamshovel Slough, and the project proposes to remove oil operations from the Synergy Oil Field site. Similarly, although there are “waters of the U.S.” on the City Property site, as shown in Draft EIR Figure 3.3-6, City Property Site—Jurisdictional Delineation Map, p. 3.3-44, the project proposes to remove oil wells from the City Property site. Finally, as noted on Draft EIR p. 3.3-47, there are no “waters of the U.S.” on the LCWA site.

Response 11b-6

The comment states that the Draft EIR does not adequately call for sampling and core sampling of the LCW area exposed to petroleum by products. The DEIR does not contemplate the conventional wisdom that thousands of tons of contaminated soil will have to be removed for proper restoration.

The discussion of the Phase I and Phase II work to characterize soil contamination on the project site was discussed in Draft EIR Section 3.7, *Hazards and Hazardous Materials*. As described on pp. 3.7-27 and 3.7-34, the Draft EIR acknowledges that there are areas requiring soil remediation and removal from the Synergy Oil Field and City Property sites. Areas that have been identified with elevated concentrations of diesel and gasoline range TPH, lead, and naphthalene would require remediation through excavation of the affected soils and disposal at an offsite location. The Draft EIR acknowledges that approximately 24,000 tons of soil would be excavated from the areas around test locations HA-3 and HA-5 on the Synergy Oil Field site, and approximately 200 tons of material would be removed from sample site location H-9 on the Synergy Oil Field site, which is located near Steamshovel Slough. New Figure 3.7-2a, Sample Locations, shows the sampling locations for investigations conducted during 2016 and 2017; new Figure 3.7-2b, Areas to be Excavated, shows the areas where soil would be excavated and disposed of at a facility permitted to accept the material. Additionally, Draft EIR p. 3.7-35 also recognized that landfilled materials on the Pumpkin Patch site may require removal.

Response 11b-7

The comment states that prior owners have sold these parcels with the knowledge that the majority of oil has been removed, and asks what happens in the event of bankruptcy of the oil operator. The comment expresses concern that the City would be left with a huge mess. The developer should be able to demonstrate through seismic and other studies that there is actually recoverable oil in the project site.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, based upon the fact that oil is currently being extracted from the site, the Applicant believes that there are sufficient deposits to warrant development of the project. Part of the reason why the wetlands are being restored as a mitigation bank, is that the sale of wetlands credits will help finance the wetlands restoration activities and the long term monitoring and maintenance of the restored wetlands. Given the current oil operations being conducted by the Applicant, it is speculative to allege the potential for bankruptcy.

Response 11b-8

The comment states that the Draft EIR proposes burning methane on site and that it is unacceptable to burn captured carbon on the wetlands habitat. A proper mitigation would be that these operations are powered by solar.

The project does include the use of solar as a source of energy as suggested by the comment. As described in Draft EIR Chapter 2, Project Description, p. 2-54, the project includes an energy system microgrid, which would integrate multiple energy sources to maximize energy efficiency and environmental benefits. A solar photovoltaic system would be installed on the rooftop of the office building and warehouse on the Pumpkin Patch site, and is expected to produce approximately 160 kilowatts of electricity.

The project will also utilize methane as a source of energy. During the oil extraction process, oil, water, and gas are brought to the surface from the production formation, separated into component parts, and processed. Among the gasses that are separated during the production process are methane, ethane, and propane from the natural gas produced through the oil extraction process. As described in detail on Draft EIR p. 2-62, the natural gas produced during the oil extraction process would be used to power the facility. Therefore, rather than release methane into the atmosphere, the project will capture and combust the methane to produce energy. The project proposes to use the methane-derived energy onsite to power the gas turbines. In addition, the type of turbines that are proposed to be placed on the site are highly efficient as they include what is known as an exhaust gas recirculation system that further reduces emissions by taking any methane from the exhaust and recirculating it through the system, thus greatly reducing, if not virtually eliminating, the release of methane to the atmosphere. The turbines including the exhaust gas recirculation system is one of the cleanest gas turbines on the market and will help reduce GHG emissions.

The energy system microgrid with its solar photovoltaic system and the gas turbines will be located on the two oil production sites, specifically the LCWA site and the Pumpkin Patch site, the LCWA site is not a wetland and the Pumpkin Patch site containing an area being treated as a wetland is not being developed. There will be no burning or combustion of methane in the wetlands habitat.

Response 11b-9

The comment states that even if the project were to be approved, the office building and warehouse should not be built on the wetlands parcels, Pumpkin Patch and LCWA parcels.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, the project proposes the development of an office building and warehouse on the Pumpkin Patch site to replace the office building and storage facilities currently on the Synergy Oil Field site. The oil company will require construction of a new office building for its operation because the Bixby office building on the Synergy Oil Field site will be transferred to the Los Cerritos Wetlands Authority for use as a visitors center. Both structures will be built on the Pumpkin Patch site and will not have any impact on wetlands habitat areas as all potential wetland areas on that site are avoided. The LCWA site does not contain any wetlands.

Response 11b-10

The comment states that the cumulative effects of recent and proposed development are not adequately contemplated in the Draft EIR. The comment cites related projects such as the AES Generating Station, Battery Towers, 2nd and PCH development, and the Land Swap Oil Drilling Plan.

Draft EIR Table 3-1, List of Cumulative Projects, in Chapter 3, *Environmental Settings, Impacts, and Mitigation Measures*, pp. 3-6 and 3-7, includes a list of related projects that were used in preparing the cumulative impacts. As described therein, the related projects list includes the 2nd and PCH project, the Alamitos Generating Station Battery Energy Storage System, and the AES Alamitos Energy Center; thus, all of the related projects identified by the commenter were taken into consideration in the preparation of the cumulative impacts analysis. The comment identifies a cumulative project titled “Land Swap Oil Drilling Plan.” This appears to be a description of the proposed project—which is not a related project, but rather is the topic of this Draft EIR.

Response 11b-11

The comment states that the LCWA parcel may not be allowed to be swapped per the terms of the consent decree.

The comment does not raise a substantive issue on the content of the Draft EIR as it does not relate to physical impacts to be studied under CEQA. It will be included in the administrative record and will be provided to City decision-makers for consideration. However, to response to the comment, in 2001, in settlement for a lawsuit involving the SCE San Onofre Generating Station, *Earth Island Institute, Donald May, David Jeffries v. Southern California Edison Company* (USDC S. Dist. Cal. Case No. 90CV1535-B), SCE recorded an irrevocable offer to dedicate (OTD) an approximately 5-acre parcel that it owned at the northeast corner of Studebaker and Westminster, referred to in this Draft EIR as the LCWA site. The OTD was made to the California Coastal Conservancy (Conservancy). As described in Draft EIR Chapter 2, *Project Description*, p. 2-18, the Conservancy subsequently at a public hearing on January 18, 2007, designated the LCWA to accept on Offer of Dedication for the 5-acre LCWA site, which LCWA accepted. The terms of the OTD allow for the acceptance of the OTD by the Conservancy or by another federal, state, or local governmental entity or non-profit organization. The acceptance of the OTD would permit the LCWA to utilize the parcel to implement a resource enhancement program at the Los Cerritos Wetlands.

As set forth in Recital B. the OTD, the Conservancy, or its assignee or successor in interest, may accept the OTD and subsequently sell or transfer the property at fair market value to fund Conservancy projects (see OTD Section 4). The land exchange proposed by the project would further LCWA’s wetlands restoration and protection goals for the Los Cerritos Wetlands by resulting in the conveyance of 76.5 acres of restored wetlands to the LCWA for its long-term management and ownership. Therefore, upon a finding by the LCWA that the land exchange furthers its mission of implementing a resource enhancement program at the Los Cerritos wetlands, it may sell the property. The project proposes a land exchange in place of a sale. In furtherance of the land exchange, LCWA is having an appraisal completed to ensure that the value of the land that it will be receiving is equal to or exceeds the value of the 5-acre parcel. In conclusion, the OTD allows for the disposition of the 5-acre under certain specified circumstances which the proposed land exchange satisfies.

Response 11b-12

The comment states that using Steamshovel Slough as the basis for a mitigation land bank violates the public trust doctrine. The comment states that the public trust doctrine does not allow state tidelands and waterways to be monopolized by private parties and cannot be bought and sold.

The comment does not raise a substantive issue on the content of the Draft EIR as it does not relate to physical impacts to be studied under CEQA. It will be included in the administrative record and will be provided to City decision-makers for consideration. However, in response to the comment, the public trust doctrine is based upon the concept that certain properties which belong to the people are to be held in a trust by the government. Public waterways are one example of property held in trust by the state for the benefit of the public. Waters subject to the public trust doctrine are to be used for the furtherance of commerce, navigation, fisheries, and the protection of the environment (*National Audubon Society v. Superior Court* [1983] 33 Cal.3d 419). The public trust doctrine does not prohibit private ownership of waterways, but does require that the use of waterways be consistent with furthering commerce, navigation, fisheries and the environment. It is not settled that the public trust doctrine applies to the Steamshovel Slough, nor is this response intended to serve as the legal opinion of the City of Long Beach regarding the application of the public trust doctrine to the Steamshovel Slough.

Whether the public trust doctrine applies or not, the project proposes restoration of the Los Cerritos Wetlands including enhancing Steamshovel Slough for the purpose of providing greater environmental protection and habitat benefits. In addition, the project also provides greater public access through construction of the Studebaker Trail which will allow the public to access the area in close proximity to the Slough and to be able to enjoy the environmental benefits of the restored wetlands.

Response 11b-13

The comment states that the project does not adequately consider EPA guidance for a watershed approach to wetlands restoration.

Restoration of the wetlands on the Synergy Oil Field site is being reviewed by the Interagency Review Team (IRT), of which EPA is a member. The restoration work is being conducted through establishment of a mitigation bank and, as part of the IRT process, the applicant is required to demonstrate compliance with the 2008 Corps and EPA Final Rule on Compensatory Mitigation for Losses of Aquatic Resources. This includes not only satisfying the watershed approach to restoration, but a suite of other requirements that are vetted not only by the EPA but other state and federal agencies as well. As described in Draft EIR Chapter 2, *Project Description*, p. 2-27, the Draft EIR acknowledges that restoration of the wetlands is being developed as a mitigation bank and undergoing review by the IRT.

Response 11b-14

The comment states that the Draft EIR does not adequately consider that the San Gabriel and Los Cerritos are two distinct watersheds. The commenter further states that the Los Cerritos watershed has distinct freshwater areas above the tidal prism that are not adequately considered in the Draft EIR.

As discussed in Section 3.8, *Hydrology and Water Quality*, p. 3.8-1, the four individual sites (Synergy Oil Field, City Property, Pumpkin Patch, and Los Cerritos Wetlands Authority [LCWA] sites) are located in the 640-square-mile San Gabriel River Watershed. The commenter refers to the adjacent Los Cerritos

Channel/Alamitos Bay Watershed Management Area, which encompasses an area that used to be extensive marshlands prior to urbanization. In any case, the identification of watersheds or the location of alleged freshwater areas is not relevant to this proposed project. As explained in Draft EIR Section 2.4, *Project Objectives*, the objectives of the project are to restore tidal salt marsh habitat and associated subtidal, intertidal, transitional, and upland habitats. This restoration of habitat would result in improving the natural functions of wetlands, which are known to improve water quality. The surface water and shallow groundwater connected to the Los Cerritos Channel in the area of the four sites is brackish to saline. There are no known freshwater areas under the four sites.

Response 11b-15

The commenter states that in light of Hurricane Henry on the Houston area oil production, the Draft EIR does not adequately contemplate or have adequate mitigation measure for the inevitable flooding of this area and the accompanying toxic hazards from inundated oil operation.

As discussed in Draft EIR Chapter 2, *Project Description*, Section 2.5.1.1, Synergy Oil Field Site, the design of the project takes into account sea level rise to ensure that the southern area of the Synergy Oil Field site would be protected from sea level rise. In addition, as described in Draft EIR Section 3.8, *Hydrology and Water Quality*, p. 3.8-18, a sea level rise study was conducted to examine the impacts of sea level rise, a tidal surge, and flooding of the property. As described on Draft EIR pp. 3.18-31 through 3.8-32, the study determined that in order to protect existing structures, such as the Bixby Office Building that is proposed to be used as a visitors center, the elevation of the building should be raised to avoid flooding impacts. In addition, the design, location, and elevation of new structures have considered the potential impacts of flooding, storm surges, and sea level rise on the project sites. The replacement of the existing older oil extraction wells, associated piping, and controls with modern wells and associated equipment would result in the improved ability to shut down the system in the event of flooding. Wells would be constructed with modern well head seals and placed in well cellars, all with modern control systems capable of shutting down the system in the event of flooding or some other hazard. As described in Draft EIR Section 2.5.1.3, Pumpkin Patch Site, the supervisory control and data acquisition (SCADA) 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 or a hazard such as flooding is imminent.

Response 11b-16

The commenter states the Draft EIR does not adequately contemplate or mitigate stormwater and pollution control.

Stormwater management is described in several sections of the Draft EIR. Section 2.5, *Project Characteristics*, describes that secondary containment for storage tanks would be designed to handle the 25-year storm event. Draft EIR Section 3.5.3.2, State, of Section 3.5, *Geology, Seismicity and Soils*, describes that the Applicant would be required to acquire coverage under the NPDES Construction General Permit and its required preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that would control runoff and runoff during construction. Draft EIR Section 3.5.3.3, Local, describes the Long Beach Storm Water Management Program and its required Best Management Practices (BMPs) to control stormwater runoff during both construction and operations of projects. Section 3.5.3.3 also describes that the Applicant would be required to comply with the Long Beach MS4 permit and the Long Beach Low-Impact Development (LID) Manual, which would require managing stormwater runoff after construction is complete. The hydraulic

modeling conducted for the project is described in Draft EIR Section 3.5.4.2, Methodology, and Appendix G3, which evaluated the project for surface water responses to both tidal and storm events. In addition, Draft EIR Section 3.8, *Hydrology and Water Quality*, addresses stormwater and pollution control as part of the construction activities proposed on all four sites. A discussion of the NPDES General Construction Permit and the Municipal Stormwater Permitting is provided on Draft EIR p. 3.8-13, and the application of these statewide requirements to the City of Long Beach is addressed on Draft EIR p. 3.8-15. This information was used to inform the design of the wetlands habitat restoration. Impact GEO-5, Impact HY-1, Impact HY-3, and Impact HY-4 addressed potential impacts relative to stormwater issues. The analysis in the Draft EIR concludes that with compliance with the applicable regulatory requirements, mitigation measures, and permits, the project is not anticipated to generate runoff that would exceed the storm drain capacity and is therefore less than significant.

Response 11b-17

The comment states that the project is inconsistent with the California Coastal Act mission for preservation and public access to local coastal resources. The Draft EIR does not adequately consider or mitigate for the Coastal Act.

Consideration of Coastal Act policies was included as part of the analysis in Draft EIR Section 3.9, *Land Use and Planning*. See Table 3.9-1, Consistency with Local Land Use Plans, starting on p. 3.9-19 in the Draft EIR, that identifies SEADIP and Coastal Act policies and the project's consistency with those policies. As described therein, with respect to preservation and public access to coastal resources, the project proposes restoration of the Los Cerritos Wetlands including enhancing Steamshovel Slough for the purpose of providing greater environmental protection and habitat benefits. In addition, the project also provides greater public access through construction of the Studebaker Trail, which will allow the public to access the area in close proximity to the Steamshovel Slough and to be able to enjoy the environmental benefits of the restored wetlands.

Response 11b-18

The comment states that the SEADIP 4a plan call for the developer to develop wetlands on all areas designated for wetlands. This is not consistent with the project.

SEADIP Section B, which includes Paragraph 4a, is titled "Responsibility for Construction and Maintenance of Wetlands and Buffers." Section B outlines the responsibility for restoration of the wetlands of the developers of Areas 11a, 25, and 26. Areas 11a and 25 are included as part of the project. The project proposes and amendment to SEADIP clarifying that the wetland restoration obligations of Areas 11a and 25 are to be satisfied through implementation of the wetlands restoration plan on Areas 23 and 33, which encompass the area proposed for the wetlands mitigation bank. Paragraph 4a cited by the commenter sets out an exception to the provision set forth in Paragraph 1 of this Section. As the project intends to comply with Paragraph 1 as amended, the provisions of Paragraph 4a are not applicable.

Response 11b-19

The comment states that SEADIP A-11 provides that public access shall be provided to and along the boundaries of all public waterways are provided for in the wetlands restoration plan. The project and Draft EIR do not conform to this requirement.

The project provides a variety of public access improvements to provide and enhance access consistent with this SEADIP policy. Of primary importance is the provision of the Studebaker Trail, which will provide access to the Los Cerritos wetlands and the Steamshovel Slough. Although public access is not being provided along the entire length of the Steamshovel Slough through the property, access that is on balance the most protective of coastal resources is being provided by the project (also refer to Draft EIR Table 3.9-1, Consistency Analysis with Local Land Use Plans, p. 3.9-29).

Response 11b-20

The comment cites the LCP adopted in 1980 that provides for protection of sensitive coastal resource areas. Because the LCP is the Resources Management Plan for the area, it is the plan that must be followed pursuant to the Coastal Act. The comment asserts that the project and Draft EIR do not conform to this requirement.

The LCP is the plan that governs a portion of the project, specifically the Pumpkin Patch and LCWA sites. As described in Draft EIR Section 3.9, *Land Use and Planning*, p. 3.9-9, the Synergy Oil Field and City Property sites were white-holed and not included within the City's LCP. The statement in this comment recognizes that certain resources, such as sensitive coastal resource areas, will require attention to ensure protection and enhancement. The proposed project is consistent with this statement in that it will provide for the restoration of degraded wetlands on the Synergy Oil Field site, and will provide for the protection of 2 acres of degraded wetlands on the Pumpkin Patch site. There are no sensitive habitat areas on the LCWA site.

9.2.3.5 Los Cerritos Wetlands Land Trust, September 6, 2017

Comment Letter 12

Comment Letter 12

CHATTEN-BROWN & CARSTENS LLP
2200 PACIFIC COAST HIGHWAY
SUITE 318
HERMOSA BEACH, CALIFORNIA 90254
www.cbcearthlaw.com

TELEPHONE (310) 798-2400
FACSIMILE (310) 798-2402

E-MAIL:
MCS@CBCEARTHLAW.COM

September 6, 2017

Mr. Craig Chalfant, Senior Planner
Development Services Department
City of Long Beach
333 West Ocean Boulevard
Long Beach, CA 90802

Via email craig.chalfant@longbeach.gov

Re: Draft Environmental Impact Report for the Los Cerritos Wetlands Oil
Consolidation and Restoration Project, SCH# 2016041083

Dear Mr. Chalfant:

We submit these preliminary comments on the Los Cerritos Wetlands Oil Consolidation and Restoration Project DEIR (SCH#2016041083) on behalf of the Los Cerritos Wetlands Land Trust ("Land Trust"). The Land Trust works to protect, restore and enhance the Los Cerritos Wetlands and to educate the public on the multiple values the wetlands provide.

12-1

We appreciate the opportunity to provide preliminary comments on the proposed Project. As presented in the DEIR, the proposed Project promises to consolidate existing oil operations and implement a wetlands habitat restoration project and new public access opportunities. We have been pleased with the applicant's exceptional outreach to our community and its engagement of the Land Trust in educational discussions about the Project. The DEIR has also been helpful in laying out the Project as proposed, as well as its features, potential environmental impacts and mitigation.

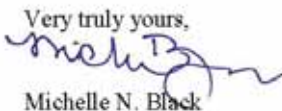
12-2

Our central concern is the length of time it will take for the Project's benefits to occur—namely: (1) the restoration of wetlands on both Synergy oil fields north and south, and (2) the offer to the LCWA and its acceptance of the restored, clean, and safe wetlands. The Land Trust remains focused on these central concerns and on a dialogue with the Project applicant and the City to determine feasible, win-win solutions that will accelerate community benefits while maintaining Project feasibility.

12-3

We look forward to continued discussion with both the Project applicant and the community and may augment these comments on the Project and its DEIR during the public process.

12-4

Very truly yours,

Michelle N. Black

Responses to Comment Letter 12

Response 12-1

The comment is an introductory statement regarding the submittal of comments on behalf of the Los Cerritos Wetlands Land Trust (Land Trust), and the mission of the Land Trust.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 12-2

The comment provides a summary of the proposed project and states that the Land Trust is pleased with the applicant's outreach to the community. The comment also states that the Draft EIR has been helpful in laying out the project, impacts, and mitigation.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 12-3

The comment states that the central concern of the Land Trust is the time it will take for the restoration of the north and south portions of the Synergy Oil Field site and the offer and acceptance the restored, clean, and safe wetlands to the LCWA. The comment notes that an open dialogue between the Land Trust, applicant, and City will be beneficial to accelerate the community benefits while maintaining project feasibility.

As described in Draft EIR Chapter 2, *Project Description*, the northern portion of the Synergy Oil Field site would be remediated, if necessary, and restored to a natural wetland area by year four once the project is implemented, while oil operations would continue on the southern portion of the site for a fixed period of time of up to 40 years. These operations would be phased out as new operations are established on the Pumpkin Patch and LCWA sites. It is important to note that 40 years is the maximum time oil operations would be allowed on the site. At this time, it is unknown at what point restoration on the southern portion of the site would occur, as that is not under consideration as a part of this Draft EIR. However, ongoing communication with the applicant, City, LCWA, and interested parties would continue as a part of the overall restoration of the Los Cerritos Wetlands. The applicant, City, LCWA and interested parties will continue to collaboratively work with LCWLT on accelerating the process. The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 12-4

The comment states that it looks forward to continued discussions with the applicant, and that it may augment its comments on the project and Draft EIR during the public process.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.3.6 The Long Beach Area Peace Networks, September 6, 2017

Comment Letters 13a and 13b

Comment Letter 13a

Craig Chalfant

From: Christensen George <achris259@yahoo.com>
Sent: Wednesday, September 06, 2017 4:21 PM
To: Craig Chalfant
Subject: LBAPN response to Los Cerritos Wetlands Restoration and Oil Consolidation DEIR and request for any and all permits associated with this project
Attachments: LBAPN response to LCWR&OC DEIR.pdf; FACT SHEET RE LCW OIL DRILLING (1).doc; land swap arguments.pdf; Archaeology_as_Disaster_Capitalism.pdf; STOP THE SWAP FLYER 2.pdf; Pilgrimage 18th 2014 (final) copy.pdf

Dear Mr. Chalfant, The format did not copy well as an email. Please see LBAPN PDF and additional attachments. Any concerns or questions contact Anna Christensen, achris259@yahoo.com (562) 434 0229

13a-1

Comment Letter 13a Attachment 1

September 6, 2017

From: The Long Beach Area Peace Network (contact person: Anna Christensen)

To: Craig Chalfant, Planner, LBDS

Response to the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
and project applicant's request for any and all additional permits

13a-2

The Long Beach Area Peace Network opposes the Los Cerritos Wetlands Restoration and Oil Consolidation Project and finds the DEIR for the project to be fatally flawed. We also oppose the granting of any and all permits for the project by those agencies empowered to do so. As a peace and social justice organization we will not stand by while our city government continues to promote public and private projects which pose real threats to public safety, to our fragile environment, to marginalized populations, and to our future generations. We insist that the concerns we have outlined in the document, SOME FACTS AND QUESTIONS ABOUT BOMP's LOS CERRITOS WETLANDS RESTORATION AND OIL CONSOLIDATION PROJECT (see attached) be addressed and submit this document as part of our official comments to the DEIR.

13a-3

In brief, this DEIR fails to address the negative impacts posed by the Los Cerritos Wetlands Restoration and Oil Consolidation Project to
sensitive biological resources

air quality

water quality

water ways

public safety (including potential loss of life and property damage posed by seismic activity given the additional adverse impact of high pressure drilling and the treatment and transportation of millions of gallons of toxic fluids)

climate change/sea rise

public recreation

tribal cultural sites and activities

historic and archaeological sites

quality of life for residents and property values

13a-4

We find that the project as proposed would violate CEQA, the California Coastal Act, the Local Coastal Permit of the City of Long Beach, the General Plan of the City of Long

13a-5

Beach (including Local Historic Preservation Element, Goal 1: Maintain and support a comprehensive, citywide historic preservation program to identify and protect Long Beach's historic, cultural, and archaeological resources), the mandate of the LCWA, numerous laws affirming the rights of Indigenous Peoples (including non-federally recognized California Indian Tribes), and the Public Trust Doctrine as regards waterways.

13a-5
(cont.)

Additionally, we believe that the City of Long Beach, as the lead agency on this project, has failed to conduct adequate public outreach, especially in light of the history of public support for the Los Cerritos Wetlands, the additional and simultaneous impact of SEASP zoning changes on the wetlands and residents of the area, and the fact that the project directly involves the public as landowners who face potential property damage and serious liabilities for any and all of the project's potential negative impacts as stated above.

13a-6

We also note that Beach Oil Mineral Partners has engaged in an ongoing disinformation campaign to persuade the community that their priority is wetlands restoration and that their project will be the salvation of our long-neglected Los Cerritos Wetlands. We see BOMP's recent public offer to "endow" the non-profit Los Cerritos Wetlands Land Trust as a blatant effort to buy support from an organization with a history of opposing commercial development in the Los Cerritos Wetlands. As a condition for reviewing the DEIR and any and all other permits, we think that public agencies and officials should learn more about the identity and viability of this new corporation, especially given that the DEIR calls for proposed new oil operations to be up and running before a single old well is decommissioned under a 40 year plan to hide and expand, not remove or reduce, ongoing oil extraction in and around the Los Cerritos Wetlands. For starters, it is reasonable to ask if BOMP's Synergy Partner is the multi-national Synergy Oil Company and, if so, to question the impact of placing a fragile public resource in foreign hands. It is also appropriate to learn exactly what chemicals will be used to "treat" the water that will be re injected into the wetlands after the oil is removed, and what effect this "treated" brew will have on our environment.

13a-7

13a-8

LBAPN submits the following additional comments to the DEIR:

13a-9

1) The Project Goals fail to address the relevance of the project area to tribal peoples, most specifically Southern California tribes with a spiritual and physical connections to the Los Cerritos Wetlands, Puvungna, and Motuucheyngna. Project goals do not include any commitment to the preservation of Tribal cultural resources. Project goals do not include BOMP's for-profit goal of extracting 200 million barrels of oil from beneath the Los Cerritos Wetlands and surrounding area. Nor do the Project Goals acknowledge that the mitigation bank is also a for-profit operation. The Project Goals greenwash an oil company's ruthless assault on the Los Cerritos Wetlands and in true Orwellian fashion promote the project as wholly in the public interest.

13a-9
(cont.)

2) The LCWA property referred to in the DEIR cannot not be legally conveyed to BOMP to be used as a site for oil drilling operations. To bury the transfer of this public property into private hands in a project where the LCWA does not assume the role of project developer or lead agency violates the public trust. The LCWA was established to protect and restore the Los Cerritos Wetlands, period. As wetlands' "stewards," the LCWA may not collude with private parties on projects which in any way have the potential to harm existing biological and cultural resources located in the Los Cerritos Wetlands, whether these be on public or private lands. To do so not only compromises the mission and independence of the LCWA, it raises serious legal concerns as to the expenditure of public monies by and the conflicting interests of member organizations and their representatives on the LCWA board.

13a-10

3) The LBAPN finds the following conclusions of the DEIR to be incorrect:

- 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.
- Impact CUL-2: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Impact CUL-4: The project would not disturb any human remains, including those interred outside of formal cemeteries.
- Cumulative Cultural Resources Impacts: The project would not result in cumulative impacts to cultural resources.
- Impact TCR-1: The proposed 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).
- Cumulative Tribal Cultural Resources Impacts: The project would not result in cumulative impacts to tribal cultural resources.

13a-11

The Lead Agency (the City of Long Beach) and the project developer have violated SB 18 and AB 52 (see Tribal Cultural Resources and Cultural Resources)

13a-12

1) Lack of outreach to and input from affected tribal groups and individuals as required by CEQA, SB 18 and AB 52.

13a-13

Under SB 18, the City of Long Beach is mandated to establish a working relationship with local tribal peoples and involve them at the earliest possible stages of any development projects that would affect their territory, their cultural/burial/historic sites, and/or their ability to practice their culture. In spite of being provided with contact information and encouraged to reach out to local tribal members and organizations, LBDS has made no effort whatsoever to follow this mandate. Instead, we are expected to believe that local tribal peoples have no interest in preserving the Los Cerritos Wetlands and no opposition to the impending disruption and destruction of the Los Cerritos Wetlands ecosystem and their tribal cultural sites. We are expected to believe that local tribal peoples only want to be contacted once construction begins, and even then, only ask to observe as what remains of their culture is carted off or crushed.

13a-14

As the DEIR for the Los Cerritos Wetlands Restoration and Oil Consolidation Project makes clear, monitoring jobs will go to the tribal group that has most consistently green lighted development. LBDS in general and this DEIR specifically lacks input from most tribal councils, tribal cultural organizations, and tribal individuals, most especially members of the Tongva and Acjachemen tribes who

- a) advocate for cultural and environmental preservation and protection (ie: United Coalition to Protect Panhe, Sacred Places Institute for Indigenous Peoples, T'iat Society, Keepers of Indigenous Ways, Gabrielino/Tongva Springs Foundation)
- b) represent the local Native American community and are well known public figures active in tribal and civic affairs - specifically those focused on cultural recognition and preservation (ie: Cindi Alvitre, Rebecca Robles, Angela Mooney D'Arcy, Anthony Morales, Matias Morales, Matt Belardes, Joyce Perry, Julia Bogany, Jackie Nunez)
- c) continue to hold ceremony and practice their culture in the Los Cerritos Wetlands (Ancestor Walk and T'iat Society)
- d) have worked to preserve the National Register site of Puvungna and burial and archaeological sites in and around the wetlands

13a-15

e) have commented on and/or expressed their opposition to SEASP rezoning

13a-15
(cont.)

2. Inadequate assessment of the project's impact on Cultural Tribal Resources

Although the Los Cerritos Wetlands are eligible for Sacred Site and Traditional Tribal Cultural Landscape status, the project applicant has concluded that the project will have no significant impact on Cultural Tribal/Archaeological Resources. Whether through ignorance or intent, the DEIR

13a-16

a) fails to adequately describe the history and culture of local tribal peoples

b) fails to acknowledge and describe how contemporary local tribal peoples, including but not limited to, the Tongva and Acjachemen, view and interact with the Los Cerritos Wetlands and nearby ceremonial sites

13a-17

c) fails to acknowledge the impacts of the project as regards the disruption and destruction of the Los Cerritos Wetlands ecosystem in relation to past and present tribal world views which hold that all living beings are relatives deserving of respect whose fates are interconnected.

13a-18

d) lacks any discussion of the spiritual, physical, and historic connections of the Los Cerritos Wetlands to Puvungna, a major ceremonial center and National Register site, or to the village of Motuucheyngna where multiple burials have been unearthed

13a-19

e) lacks any information about or contribution from representatives of tribal organizations with a history of protecting and preserving the Los Cerritos Wetlands and other significant tribal sites

13a-20

f) fails to acknowledge the extent to which evidence of the history and culture of the tribes of coastal Southern California have been erased by development (90+%) and also fails to acknowledge that there are no mitigation measures that do not contribute to this pattern

13a-21

g) Assumes the position that any potential negative impacts of the project can be mitigated and fails to consider the only option that can reasonably be expected to avoid damage to cultural and biological resources - No project, no impact.

13a-22

h) " 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" After stating in Impact CUL-4 that the project would not disturb any human remains, the DEIR goes on in Mitigation Measure CUL-6 to describe how such disturbed remains would be handled by the Kizh Nation, "a consulting party for the

13a-23

project under AB 52." The treatment and final disposition of "sacred sites" assumes, incorrectly, that the project area as a whole holds no spiritual value to tribal peoples.

↑
13a-23
(cont.)

- i) This DEIR assumes that agreements regarding tribal cultural properties can be entered into with a single tribal entity, in the context of a "Native American Monitoring Agreement, under a "Treatment Plan" with a "qualified archaeologist" supervised by an individual that meets standards set by the Secretary of the Interior. Such "business as usual" protocols are nothing other than the institutionalized continuation of colonialism and the conquest of indigenous lands and peoples. Tribal peoples have the legal right to be equal partners in decisions regarding the environment and tribal cultural resources. Private property owners, private developers, city, state, and federal agencies cannot afford to ignore the mounting challenges that unchecked development, especially the fossil fuel industry, poses locally and globally. Nor can the legitimate concerns and viable solutions put forward by indigenous peoples be dismissed.

13a-24

LBAPN also concurs with and supports comments submitted by others opposed to the DEIR, including:

- a) Ann Cantrell regarding the illegality of the transfer of the LCWA site for the purpose of oil operations
- b) Long Beach 350 regarding the project's contribution to global warming
- c) The California Cultural Preservation Alliance regarding the lack of consultation with tribal peoples and the project's impact on cultural and natural resources

13a-25

See attached materials for additional comments, documents and positions referenced in this commentary, and additional evidence for LBAPN's position.

Comment Letter 13a Attachment 2

SOME FACTS AND QUESTIONS ABOUT BOMP'S LOS CERRITOS WETLANDS RESTORATION AND OIL CONSOLIDATION PROJECT

Public land, acquired in a settlement with Southern California Edison specifically for the purpose of restoring the Los Cerritos Wetlands, will be used by Beach Oil Mineral Partners (BOMP) to drill new wells, allowing the extraction of up to 200 million barrels of oil from beneath the Los Cerritos Wetlands and surrounding areas.

13a-26

BOMP's oil consolidation project will drill 120 new wells, adding pipelines, water treatment facilities, storage units, and offices, before removing any of its 53 old oil wells in the wetlands. After new oil operations are up and running, BOMP will have up to 40 years to remove old wells, pipelines, storage tanks, and contaminated soil and water.

13a-27

Air will be exposed to pollution from methane gas and other toxins as oil is extracted. Massive amounts of water will be injected under pressure to dislodge and replace oil.

13a-28

BOMP's oil consolidation involves diagonally drilling 120 new oil, water injection and water source wells on either side of the Newport Inglewood earthquake fault and building more pipelines, including one to transport oil over the fault. Our wetlands are subject to liquefaction, any sudden stress can cause solid ground to become soup.

13a-29

Contaminated waste water will be treated on site and re-injected into the wetlands to prevent subsidence. Groundwater, the wetlands, and Alamitos Bay will be vulnerable to contamination from oil, chemical cleaners, and waste water due to drilling methods, possible accidents (including spills and pipeline leaks), and earthquakes.

13a-30

BOMP's wetlands restoration plan includes bulldozing channels to drain ponds and soils contaminated from years of oil operations on its property into ancient healthy wetlands (the best salt marsh in Southern Calif).

13a-31

The Los Cerritos Wetlands Authority's Wetlands Restoration Plan states that the hydrology of these ancient living wetlands, will not be altered. To do so could destroy this fragile ecosystem. Alternative methods removing contamination are in place.

13a-32

BOMP's wetlands restoration will be funded by BOMP's mitigation bank. Investors will earn "pollution credits" to offset their own environmentally damaging projects elsewhere.

13a-33

BOMP's project will destroy sacred sites of the Tongva, Acjachemen, and other local tribal peoples, erasing their history and impacting their ability to maintain their culture.

13a-34

In response to concerns regarding earthquakes, Susan Hough, of the US Geological Survey states: Regarding the Los Cerritos Wetlands Restoration and Oil Consolidation Project, a few basic questions that any seismologist would reasonably ask are:

13a-35

1. How deep will production and wastewater wells be?
2. How close will wells be to known faults (both major and secondary)?
3. Will there be a "stop-light" system in place to monitor seismicity once operations begin (using what data)?
4. Will local seismic monitoring be done? If so, will the data be made available?

13a-36

13a-37

13a-38

Comment Letter 13a Attachment 3

WHY I OPPOSE GIVING UP DON'S FIVE ACRES

1. DON MAY OF EARTH CORPS, THE FORMER OWNER OF THE 5 ACRES AT STUDEBAKER AND 2ND, STATES THAT WHEN SC EDISON CONVEYED THIS PROPERTY TO EARTH CORPS AS SETTLEMENT FOR THE DAMAGE DONE TO MARINE LIFE AT SAN ONOFRE, THE COURT ORDERED THAT THE PROPERTY WAS TO BE USED TO FURTHER THE RESTORATION OF THE ESTUARY OF THE SAN GABRIEL RIVER. HOW CAN DRILLING FOR OIL CAN ACHIEVE THIS REQUIREMENT?

13a-39

2. The city's Initial study for the EIR lists numerous Potentially Significant Impacts. "The proposed project could result in potentially significant impacts with regard to aesthetics, air quality, biological resources, cultural resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, public services (fire protection, police protection and parks), recreation, transportation and traffic, and utilities and service systems."

13a-40

The Final EIR is not expected to be approved until spring, 2017. Attorney Doug Carstens and Biologist Rob Hamilton have both argued that the LCWA should wait until the EIR is complete before agreeing to the land swap. They also urged the Authority wait until SEASIP has been finalized and the zoning changed.

13a-41

3. The proposed water injection is said to be for combating subsidence, but is also a method used for fracking or 'well enhancement'. This requires the use of potable water, a scarce commodity during a drought. Since LB obtains 50% of its water from water wells, I am concerned about contamination of our drinking water.

13a-42

4. The pipelines going under Second St. from the Pumpkin Patch and along the Bryant property are on an earthquake fault and subject to rupture. This would be disastrous for the wetlands. Drilling activity on the 5 acre property could trigger another earthquake on the fault such as occurred in 1933.

13a-43

5. Mitigation banks allow developers to do environmental damage in other sensitive areas. This results in smaller habitat left for wildlife.

13a-44

6. IT APPEARS THE OWNERS OF THE LCW ARE PLANNING ON ONLY REMOVING THE OLD WELLS AND PIPES AND PLANTING SOME NATIVE PLANTS AND CALLING THIS RESTORATION. THEY MUST BE REQUIRED TO REMEDIATE AND REMOVE THE ASPHALT AND TOXIC DRILLING MUDS WHICH WERE DISCHARGED INTO PONDS OVER THE YEARS.

13a-45

WHY I OPPOSE GIVING UP DON'S FIVE ACRES

7. This will allow Synergy access to a new source of oil (120 new wells) when we should be finding ways to eliminate our reliance on fossil fuels and use renewable energy. Oil operations will continue with the 35 wells on the Synergy property, plus from the 18 wells on the city's property behind the Market Place for 40 years. I believe there is a better use for the 5 acres at Studebaker and Second St. than 120 foot drill rigs and 48 foot high tanks full of explosive oil. In the 20 years I have been involved in saving these wetlands, this property has changed owners four times. Who knows what can happen in the next 40 years? Climate change and sea level rise are recognized as threats to this area. Oil is already a falling market. Renewable energy is becoming more popular. Leave it in the ground!

13a-46

8. Originally, this project was proposed by Synergy, a Chinese oil company. Then it was announced that Los Cerritos Wetlands, LLC was in charge. It now appears that Beach Oil Mineral Partners (BOMP) has taken over the project. John Mckeown is CEO of all three entities. These are start-up companies with no history. Who will be in charge in 40 years when the last oil well is to be removed and the wetlands are ready to be 'restored'?

13a-47

9. The original plan of the Los Cerritos Wetlands Land Trust was to restore the wetlands by bringing in fresh water from the San Gabriel River. The current plan conflicts not only with this plan, but with the LCWA's own Final Conceptual Restoration Plan for the wetlands. The restoration proposed by Synergy involves bulldozing channels to connect ancient, healthy wetlands with polluted ponds and soil contaminated from years of oil operations on the property. Bringing sea water into the wetlands via Steam Shovel Slough and Sea Level Rise will result in a salt water marsh, not the original brackish-water wetlands.

13a-48

10. Using Steam Shovel Slough as the basis for a mitigation land bank violates 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.

13a-49

These are just a few of the reasons that I urge the LCWLT board to join many of your members and the El Dorado Audubon and oppose this land swap.

13a-50

Respectfully,

Ann Cantrell

August 18, 2016

Comment Letter 13a Attachment 4

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Archaeology as Disaster Capitalism

Rich Hutchings¹ · Marina La Salle¹

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Abstract Archaeology is a form of disaster capitalism, characterized by specialist managers whose function is the clearance of Indigenous heritage from the landscape, making way for economic development. When presented with this critique, archaeologists respond strongly and emotionally, defending archaeology. Anger emanates from and revolves around the assertion that archaeologists are not just complicit in but integral to the destruction of the very heritage they claim to protect. In what we believe is an act of philosophical and economic self-preservation, mainstream archaeologists actively forget the relationship between archaeology, violence, and the global heritage crisis. Securely defended by its practitioners, archaeology therefore remains an imperial force grounded in the ideology of growth, development, and progress.

Keywords Compliance archaeology · Neoliberal statecraft · Disaster capitalism · Landscapes of clearance · Slow violence

Introduction: the Business of Archaeology

The business of archaeology is the present. Olivier (2013)

Insofar as the business of archaeology is the present, it is also the business of the state and of late modern capitalism. In this essay, we deconstruct reactions to three events directly relevant to the project that is

13a-51

✉ Rich Hutchings
richard.hutchings@viu.ca

Marina La Salle
marina.lasalle@viu.ca

¹ Department of Anthropology, Vancouver Island University, and Institute for Critical Heritage and Tourism, British Columbia, Canada

“disentangling” archaeology (Gnecco and Dias, this volume). The three events of concern are:

1. the publication of “Commercial Archaeology in British Columbia” (La Salle and Hutchings 2012);
2. the announcement of the World Archaeological Congress’ (WAC) Inter-Congress “Disentangling Contract Archaeology” (Gnecco and Dias 2013); and
3. our participation in the 2013 Annual Meeting of the Canadian Archaeological Association (Hutchings 2013; La Salle 2014).

What these events have in common, apart from our personal involvement, is that they all concern the business of archaeology.

To analyze reactions to the three events noted above, we employ the classificatory scheme developed by Paul Graham (2008) (Fig. 1). Graham’s “hierarchy of disagreement” is pyramidal, illustrating that most disagreement falls within the lower categories because these are easier to formulate, and are gut emotional responses—“Truly refuting something requires one to refute its central point, or at least one of them. And that means one has to commit explicitly to what the central point is” (Graham 2008, n.p.).

Graham’s hierarchy is useful here because the subject of capitalism’s influence on contemporary society can be psychologically unsettling and debate often becomes



Fig. 1 Paul Graham’s Hierarchy of Disagreement, illustrating the significance of different kinds of responses, ranging from name calling (*bottom*) to refuting an argument’s central point (*top*). Only the top three levels constitute counterargument and refutation. (after Graham 2008 and Rocket000 2008)

emotional and personal. Understanding the rationale behind these emotions is essential as it comprises archaeology's "culture" (Kahan et al. 2011; Shanks and Tilley 1987). As such, the discipline/practice of archaeology/cultural resource management (CRM) can be "disentangled" through a consideration of responses to its critique.

Our analysis of contemporary archaeological practice affirms it as neoliberal statecraft. As such, understanding the role of archaeologists in this structure requires thinking and talking about archaeology in terms of ideology, bureaucracy, and late modern capitalism, thus globalization and neoliberalization. We conclude that archaeology represents a form of disaster capitalism, characterized by dispossession and violence—a harsh reality that is actively "forgotten" in the culture of archaeology.

Three Exchanges

Exchange 1—Commercial Archaeology in British Columbia

For all of the academic articles, books and conferences that publicize archaeological projects, there is comparatively little written about the business side of the practice. La Salle and Hutchings (2012)

Our study of the business of archaeology (La Salle and Hutchings 2012) was prompted by the observation that CRM represents the majority of archaeological fieldwork where we live, but comparatively little is published on the subject. Using information published by the Archaeology Branch in British Columbia, Canada, we found a 3000 % increase in government permits issued between 1960 and 2011, suggesting that business has been booming, particularly for industrial sectors central to the province's resource extraction economy: forestry, oil and gas, and energy projects. We calculated that 97 % of archaeology undertaken in British Columbia is commercial (Fig. 2). Despite this, few local institutions feature CRM in their curriculum, so practicing CRM archaeologists receive little training in preparation to be heritage managers. What students learn instead of the 97 % is problematic, as we discuss elsewhere (Hutchings and La Salle 2014).

British Columbia Archaeology, 2011



Fig. 2 Virtually all archaeology is compliance archaeology, at least as measured in 2011 in British Columbia, Canada. (after La Salle and Hutchings 2012, p. 10)

Archaeologists commonly sign non-disclosure agreements for the corporations and developers for whom they work, limiting their ability to communicate about the work being done. Thus, there is little opportunity for truth-telling.

Our conclusions destabilized four conventional tropes that we learned in our formal state education in archaeology:

1. archaeology is not about the preservation of sites and materials, but rather is about facilitating the destruction of heritage landscapes;
2. archaeology is not undertaken in the name of research to learn about the past, but is undertaken to fulfill legal and regulatory obligations in the present;
3. archaeologists do not have a responsibility to disseminate their results, except to their clients and the government; and
4. archaeology is not undertaken for the public good, but is instead a private, for-profit enterprise.

Response

Although our critique of archaeology/CRM focused on large corporations, the only written response came from four archaeologists employed by an Indigenous CRM firm—representing the overwhelming minority of archaeologists in the province. Lyons et al. (2012, pp. 6–7) criticized “the tone” of our article as “denigrating and dismissive,” “unnecessarily divisive” and lacking in “solutions.” They contrasted the “dense and complex” nature of politics and CRM with what they saw as an “academic ‘high ground’” espoused in our paper, wherein we “appear to be standing on a pedestal and critiquing from above rather than entering the fray.” Rather than industry, they offered that the Indigenous peoples of British Columbia have been “the most important prime mover on the historical trajectory of CRM archaeology,” and continue to have “considerable influence over CRM practice.”

The authors felt we portrayed CRM archaeologists as “a pack of money-grubbing, ethically-challenged, underachievers who couldn’t land academic jobs.” Rather than a “community [that] willfully sells resources for money,” they countered that CRM “folks” are “generally ethically-grounded, professionally-minded individuals who are committed to the best interests of archaeological resources” and only “make a solid, middle class salary.” They concluded by shifting the conversation:

while we are not able to change the broader workings of this macroenvironment, we *are* able to examine the structure(s) of our working milieux and relationships in order to generate observations, critique, discussion, and debate. Rather than asking who is making the money, we suggest setting our sights higher, and asking how we, as a collective, could work better together in order to manage the archaeological resources that are still extant in B.C. (Lyons et al. 2012, p. 7)

Argument Analysis

Referring to Graham's hierarchy (see Fig. 1), Lyons et al. (2012) relied on the following forms of argument:

Ad hominen

- Dismissing the argument because we not CRM archaeologists *working in the province* and/or are judging from an academic “pedestal”
- Neither discredits the arguments or the evidence used to support them. Further, Hutchings' CRM experience in the United States was ignored.

Responding to tone

- The “tone,” described as “denigrating and dismissive,” was the “primary bone of contention” that Lyons et al. (2012, p. 6) had with the article
- The tone—an immeasurable and perceived quality of any paper—does not negate the arguments or evidence.

Contradiction/counterargument

- Suggesting that Indigenous peoples have been the main drivers behind CRM
- Evidence supporting this claim was not provided. Regardless, this claim does not negate our contention that the economic climate of the province and resulting industry and development are what drive archaeology and thus permits issued. This is therefore counterargument aimed at a different issue.

Refutation

- Countering that archaeologists only make a “modest middle-class wage”
- This refutation does not correspond to any statement made in our article and represents refutation aimed at a different issue. The “modesty” of this wage compared to national averages, however, is discussed later in this paper.

In sum, Lyons and colleagues did not address our central points. However, this argument analysis clarifies the motivations and emotions prompting their response: *the authors understood our critique of the structure of archaeology and of corporatization as a critique of the individuals employed in that structure*. Perceiving an attack upon commercial archaeologists as “money-grubbing” and “ethically-challenged,” the authors countered by humanizing them as “folks” and “professionally-minded.”

They also minimized both the relevance and amount of money involved. The desire to dismiss economics in favor of “higher” discussions about ethics

indicates discomfort with the nature of archaeology under capitalism. It also signals the feeling that these structures are outside of “our control” and thus inevitable. As the authors expressed, the role of people within this system is thus to “work better together” while trying to “avoid ‘biting the hand that feeds’” (Lyons et al. 2012, pp. 7–8).

The following year, British Columbia archaeologist Robert Muckle (2013a) reviewed our paper in the American Anthropological Association’s *Anthropology News*, addressing the ethic of conservation touted in archaeology and the “potential conflicts of interest” for archaeologists “working for large corporations that are development-oriented.” Despite being “shared” digitally over 500 times, no comments were ever posted to the website.

Exchange 2—Disentangling Contract Archaeology

The relationship between archaeology and capitalist expansion appears as an innocent instrumentality, as a mere technical service. Gnecco and Dias (2013)

In April 2013, the WAC Inter-Congress on commercial or contract archaeology was announced (Gnecco and Dias 2013). The abstract opened with a description of CRM archaeology as “the way the discipline engages capitalist expansion, sacrificing its critical stance,” and suggested that archaeologists working for this growing market “have abandoned any possible intervention in contemporary issues in order to dance to the rhythm of money.” Concerns included changing curriculum for this market, working for social justice while complicit in market mandates, the commodification of heritage stewardship, and how capitalism influences archaeological philosophies.

Response

Response to this abstract on the WAC listserv was immediate. People described “the tone” of the abstract as “hyperbolic,” “highly emotionally charged,” “prejudiced,” “unbalanced,” and lacking a “professional manner.” They wrote it portrayed “smugness,” “elitism,” and “a self-serving agenda.” Some felt the abstract was “offensive,” “accusatory,” and “casting aspersions on the ethics of the majority of working archaeologists,” putting them in a “provocatively negative light”; one person called the abstract “xenophobic.”

Others suggested that CRM is not “selling out” and has been used to “expand research and education,” emphasizing that capitalism also produces social “goods.” One person wrote: “corrupt or not, the system is what it is, there is no need for us to judge it one way or the other.” We responded to the maelstrom with our short essay “Five Thoughts on Commercial Archaeology” (Hutchings and La Salle 2013).

Many others applauded the conference organizers for confronting a sensitive and timely issue. Highlighted were the negative experiences of Indigenous peoples with archaeology, a pervasive lack of consultation, and pressure by employers to “get the job done.” People cited both consulting and academic archaeologists as harboring “a powerful lack of morals and ethics.” A few

lamented the restrictions of “policy” as the main force “regulating” archaeological practice.

All told, over fifty emails were posted to the listserv. However, there was no resolution as to either what exactly the problem was or how to make things better.

Argument Analysis

Emotions ran high following the online distribution of the Inter-Congress abstract and responses illustrated how personally people felt its critique. Comments largely fell into two categories:

Ad hominem

- Dismissing the abstract because its authors are not CRM archaeologists and/or are judging from an “elite” position (i.e., an academic “pedestal”)
- The authors’ academic positions do not inherently discredit the suggestions made in the abstract.

Responding to tone

- Described as “offensive,” “accusatory,” “negative,” and “unprofessional”
- The tone does not negate the validity of the abstract’s claims and is more a response to how people *felt* upon reading it.

These responses echo those to our 2012 paper. Central in both was an overwhelming emotional reaction that prompted critique of what people felt was being said—that the motivations of commercial archaeologists are “profit-driven” and unethical. In this way, critique of structure became personalized.

As a result, people felt the abstract and its authors were “unprofessional,” recalling Lyons and colleague’s defense of CRM archaeologists as “professionally-minded.” The assertion of professionalism is a claim to educated middle-class authority and morality, and infers a suite of interrelated conservative class values including avoiding confrontation, striving for balanced positions, and shunning overt political stands. Archaeology as a “profession” inheres these group values (Trigger 1989), expressed succinctly by one person who felt that, “corrupt or not, the system is what it is, there is no need for us to judge it one way or the other.” Thus, similar to Lyons et al. (2012, p. 7), the emphasis was on finding solutions that work *within* capitalism.

Exchange 3—The Canadian Archaeological Association

Whither the *Heritage Conservation Act*? Yellowhorn (2013)

As the WAC conversation concluded, we attended the Canadian Archaeological Association’s 2013 meeting, held in Whistler, British Columbia—the home of the 2010

Winter Olympics. Presenting in separate sessions, we each addressed the relationship between colonialism, capitalism, and archaeology, prompting varied responses.

The Plenary

The plenary session “Whither the *Heritage Conservation Act*: Renewal or Funeral?” featured Indigenous peoples speaking against the ongoing destruction of their heritage. Panelists spoke passionately about government tactics to “erase culture” by “destroying our heritage,” emphasizing “places cannot be replaced” and what was at stake was “preserving a way of life.” They asked archaeologists to help “stop development.” As the plenary discussant, Hutchings (2013) argued that, from its origins to today’s practice (McNiven and Russell 2005; Smith 2004), archaeology is a firmly colonialist project driven by capitalism to produce narratives that remain elitist, racist, and pro-growth, development, and progress.

Response Audience response to Hutchings’ paper was minimal, with one exception. A prominent archaeology professor challenged Hutchings for “picking on archaeologists,” noting that the issues he raised have been discussed “for decades”—that this was “old news.” Referencing development undertaken in Whistler for the 2010 Olympics, she suggested the local Indigenous communities have benefitted through construction of a new cultural center.

After the session, two people approached Hutchings, offering support and adding their own frustration with the lack of meaningful dialogue. The rest of the room had cleared after only a few questions: silence was thus the main response.

Community-oriented Archaeology

La Salle (2014) expanded on a published work (La Salle 2010) to argue that collaboration in archaeology is ideological, used to connote friendship, cooperation, equality, and ethics, yet “success” is defined as accumulation and increase of capital. Inequalities between archaeologists and collaborating communities remain and collaboration is ultimately a compromise—a “trade bead” ensuring the project of archaeology continues with minimal objection from Indigenous peoples. La Salle (2014, p. 9) concluded: “Just like the Archaeology Branch, archaeologists have the power to throw a wrench in the machine of development that is responsible for the destruction of these meaningful places, and it’s simple: *just stop digging*.”

Response In his review, session discussant George Nicholas commented that La Salle’s critique was “important,” adding that the issue of protecting heritage is an “urgent matter.” Following the conference, Muckle (2013b) published a review of La Salle’s presentation, questioning whether archaeologists pursuing collaborative research “are necessarily motivated by personal, professional, and economic factors,” and suggested that “[j]ust stop digging is a bit strong and more than a bit risky.” Muckle (2013b, n.p.) explained:

While it may be nice to think that many archaeologists are all about assisting Indigenous Peoples, we must realize that ideology is not shared by all in the profession. Archaeology in North America is over a billion dollar a year industry. I sincerely doubt that a significant number of archaeologists will jeopardize their careers by, as La Salle suggests, “just stop digging.”

Although his article was viewed several hundred times online, no one commented.

Argument Analysis Together, our papers suggested that archaeology constitutes a social violence responsible for the destruction of heritage, despite “whitewashing” (King 2009) it as ethical practice concerned with the welfare of descendant communities. The lack of response is therefore surprising. These are serious critiques undermining the ideals of the discipline and practice, academic and consulting alike—yet, what has overwhelmed is the silence.

Those who did publicly respond offered little “argument,” falling into the following categories:

Responding to tone

- Hutchings: described as “picking on archaeologists”
- Conveys discomfort with the topic rather than an argument against it.

Contradiction

- La Salle: suggesting archaeologists are not “motivated by personal, professional, and economic factors”
- No evidence is provided to support this; on the contrary, Muckle suggests archaeologists will not “jeopardize their careers” to assist Indigenous peoples.

Counterargument

- Hutchings: suggesting that Indigenous peoples have benefited from development
- This does not negate the impact of development on heritage sites or archaeology’s role in enabling this; this is therefore counterargument aimed at a different issue.

These transactions convey a deep discomfort with archaeology’s role in alienating lands and resources, historically and today. At this national conference, there were only a few sessions that dealt with CRM; most were “academic.” As such, 97 % of what archaeology is about in this province was absent, and archaeology was represented instead by the 3 %. That this 3 % is largely uninvolved and seemingly uninterested in commercial archaeology is significant.

Disentangling the Responses

Conventional people are roused to fury by departure from convention, largely because they regard such departure as a criticism of themselves. Russell (1930)

We would do well to remember that heritage preservation and the presentation of the past are processes that erase the past just as surely as warfare, looting, or development do. Arnold (2014)

Our three exchanges represent typical modes of engagement between archaeologists: writing a journal article, sending an email, and presenting at a conference. The subject matter in each exchange was similar and the commonalities in responses indicate a pattern:

1. People feel that commercial, contract, compliance or CRM archaeologists are being attacked, judged as unethical, profit-motivated, and “less than” their academic counterparts.
 - This produces a surge of anger that drives immediate “gut” responses to the critique.
2. People suggest that capitalism is inevitable: we cannot change it and we should not judge it—indeed, we should ignore “the money” and talk about how to “work better” within it and be “professional.”
 - This situates capitalism as outside of the archaeologists’ control and rationalizes the practice of CRM.
3. People argue that commercial archaeology is actually beneficial, both for archaeology and science, and for Indigenous peoples who are profiting from it and, in many ways, are driving the industry.
 - This justifies CRM as an ethically responsible practice.

These responses are defensive: they protect archaeologists and their practice by pointing the finger elsewhere to rationalize and justify their collusion in what is charged as harmful. Central to these responses is the personalization of the critique (Hutchings and La Salle 2013, p. 2).

Such reactions have been discussed in terms of cultural cognition, referring to “the tendency of individuals to form risk perceptions that are congenial values” (Kahan et al. 2011). To summarize, people tend to adopt beliefs common to their group (or profession). Individual well-being is tied into group membership through which status and self-esteem are generated. Challenges to group beliefs therefore undermine individual members’ well-being and threaten personal loss. In self-defense, people agree with arguments that reinforce their beliefs and dismiss those that contradict them as having a “negative tone,” particularly if the latter originate from outside of the group.

This dynamic is illustrated in the nature of responses to critiques of archaeology under capitalism. By and large, archaeologists are silent when it comes to the subject of capitalism. This silence may be viewed as a form of forgetting or “amnesia”—both by CRM practitioners and by academic archaeologists—of elements of the discipline deemed unfavourable. In this dynamic, observations (re)affirming archaeology’s ideals of saving or protecting the past reinforce group beliefs and are thus accepted without hesitation. Critiques of money and power are not.

The (re)production of this culture is visible in how people articulate the structure (e.g., as inevitable and unchangeable) and their roles within it (e.g., as trying to do the best they can). While people seem to feel they do not have control to make change, the relationship between structures and agents is recursive and dialectical. To understand how this dynamic unfolds in society more broadly, the remainder of this paper situates archaeology within its larger social, political, and economic contexts.

Archaeology as Disaster Capitalism

The granting of permission to build factories or other structures at places where [Indigenous heritage] sites are located... should be made contingent on the provision by the interested parties of funds for the investigation of such sites before construction commences. We cannot prevent urban expansion and industrial development, but by intelligent legislation they could be turned from a bane to a boon to archaeology. Borden (1950)

I call these orchestrated raids on the public sphere in the wake of catastrophic events, combined with the treatment of disasters as exciting market opportunities, “disaster capitalism.” Klein (2007)

Klein (2007) coined the term disaster capitalism to refer to “making money out of misery.” The concept is the centerpiece of her influential book *Shock Doctrine: The Rise of Disaster Capitalism* examining “corporatist states” and their “capitalist disasters.” Klein’s take on neoliberalism maps directly onto contemporary archaeology, demonstrated in the notion of economic development as a “boon” to the profession, as per Charles Borden’s (1950) comments above.

Borden, recognized as the “father” of British Columbia archaeology, is a historical nexus in Canadian archaeology’s origin story (Carlson 1979; Matson and Coupland 1995) or “invention” (Hobsbawm 1992). Historian Robert West (1995, p. ii) suggests “[p]rofessional archaeologists firmly control the prehistory of British Columbia” due to Borden’s post-war efforts to professionalize archaeology:

In the context of archaeological site destruction, during the 1950s, Borden was able to pull unrelated members of the B.C. populous to his cause, including provincial officials... Amateur archaeologists and Aboriginal people lacked the

means to amass the powerful alliances that Borden did, and therefore amateurs and Natives were unable to offer a persuasive alternative to Borden's authority.

Therefore, non-archaeologists must “put their faith” in the experts “and assume that the knowledge they produce is truthful and valid” (West 1995, p. ii). Archaeology's professionalization and privatization is thus of critical importance, especially to Indigenous peoples, because of its relationship to development and its role in regulating access to resources (Bodley 2008; Mander and Tauli-Corpuz 2006).

The idea of archaeologists profiting from the crisis of modernity (industrialization, corporatization, [sub]urbanization, globalization, neoliberalization, etc.) extends far beyond mid-twentieth-century British Columbia. Today, this sensibility is evident in the notion that “global warming is proving something of a boon for archaeology” (Doyle 2013)—“It's worrying that glaciers are melting but it's exciting for us archaeologists... This is only the start.”

Another example of disaster capitalism in archaeology is in “collaboration with industry” (Flemming 2004). Problematically, a prerequisite to such relationships is the near certainty that archaeologists must ultimately abandon and/or ignore the pronounced ethical problems that attend such unions (e.g., Flatman 2007, 2012). According to Joseph Schuldenrein (2013, n.p.), pressures to “collaborate” (i.e., corporatize) are exacerbated by larger crises of funding:

However, this decline is almost inversely proportional to the expanded role of applied archaeology and the concomitant acceleration of private sector influence... The largest budgets and advanced research technologies in today's archaeology are furnished by pipeline construction. Collaborative efforts between oil and gas engineers and Cultural Resource Management (CRM) professionals has resulted in quantum leaps in the discovery and understanding of the archaeological record.

Schuldenrein describes increasing privatization, suggesting oil and gas extraction—the ultimate cause of the melting glaciers discussed above—has been a boon to the profession, resulting in leaps forward in the science of the past.

Today, archaeology is an industry. Reported by the American Cultural Resources Association (ACRA), there were approximately 1300 CRM firms in the United States in 2012, employing about 10,000 people and generating over \$1 billion in revenue (ACRA 2013, p. 2). In British Columbia, the income range for CRM archaeologists of CAN \$25–40 per hour is between 2.5 and 4 times the current provincial minimum wage of \$10.25 per hour. Academic archaeology professors in the province average CAN \$110,000 to \$115,000 per annum, which is roughly four times what the median income is for most Canadians (\$27,097) and almost six times the median income for Aboriginal people (\$18,962) (La Salle 2014). Thus, an enormous income disparity remains between archaeologists, both CRM and academic, and the average population, as well as the Indigenous communities whose heritage is slowly being dismantled.

Archaeology is, indeed, big business, reliant on resource extraction and commercial and residential development for its livelihood, resulting in the destruction of heritage

landscapes, both natural and cultural, locally and globally. Archaeology may thus be considered a form of disaster capitalism, an industry created by and serving the neoliberal state.

Archaeology as Neoliberal Statecraft

Nation states, or partisans thereof, control and allocate symbolic resources as one means of legitimizing power and authority, and in pursuit of their perceived nationalistic goals and ideologies. Fowler (1987)

Today, most CRM investigations are carried out by private businesses, both for private industry and for Federal, state, and local governments, so that these organizations can efficiently meet their legal obligations under the National Historic Preservation Act and related laws and regulations. ACRA (2013)

It is well established that archaeology is a form of statecraft (Smith 2004; Trigger 1989), and archaeology's capitalist foundations have been queried (Hamilakis and Duke 2007; Shanks and Tilley 1987). Less well understood, however, are archaeology's ties to neoliberalism. We posit that because neoliberalism is the key to understanding disaster capitalism, it is also the key to understanding archaeology.

Rooted in capitalism and laissez faire principles, neoliberalism refers to a new political, economic, and social arrangement emphasizing market relations, minimal states, and individual responsibility (Springer 2010, p. 1025). Understood as an ideological hegemonic project, neoliberalism maintains that "elite groups, organized around transnational class-based alliances, have the capacity to project and circulate a coherent program of interpretations of the world on to others" (Springer 2010, p. 1032). The views of geographer David Harvey, highly regarded for his work on neoliberalism, are summarized by Simon Springer (2010, p. 1032):

Harvey's primary contention is that the foremost achievement of neoliberalism has been the redistribution of wealth to elites, rather than the actual generation of new wealth. In other words, neoliberalism represents the continuation of what Marx (1867[1976]) regarded as "primitive accumulation," which Harvey (2003, p. 145) has renamed "accumulation by dispossession" to signify its ongoing relevance under contemporary capitalism in the form of: the commodification and privatization of land and the forceful expulsion of peasant populations; the conversion of various forms of property rights (common, collective, state, etc.) into exclusive property rights; the suppression of rights to the commons; commodification of labour power and the suppression of alternative (Indigenous) forms of production and consumption; [and] colonial, neocolonial, and imperial processes of appropriation of assets (including natural resources).

In addition to class power, Springer emphasizes bureaucratic formation and its political formation. The former represents neoliberalism-as-policy, the latter neoliberalism-as-governmentality. Both are central elements of our new model of archaeology, discussed below.

To understand archaeology's relationship with the state, capitalism, and the neoliberal state, we offer a new model of archaeology (Fig. 3). In a sense, the model is archaeology "disentangled," representing the convergence of Benedict Anderson's (2006) "mechanisms of state control" and Laurajane Smith's (2004, pp. 11–12) vision of CRM as governing Indigenous cultural identity.

Anderson (2006, pp. 163–164) describes the mechanisms of state control as "the census, the map, and the museum; together, they profoundly shape how colonial states imagine their dominion—the nature of the people it rules, the geography of its domain, and the legitimacy of its ancestry." These three features essential to state authority may also be imagined as controlling the identity, places, and memory of a people—the elements that comprise heritage.

Together, they produce a "totalizing classificatory grid, which [can] be applied with endless flexibility to anything under the state's real or contemplated control: people, regions, religions, languages, products, monuments, and so forth." The effect of the grid is "always to be able to say of anything that it [is] this, not that; it belong[s] here, not there" (Anderson 2006, p. 184).

A prominent and powerful demonstration of the total classificatory grid in Canadian archaeology is the "Borden Grid" (Fig. 4). Foremost, this is due to its cartographic foundation—it is the "map" in Anderson's "census, map, museum." As Kathryn Sampeck (2014) suggests, colonists gain control of a region through mapping, which is "[t]he ultimate tool for implementing state hegemony," as it lets officials "dictate an authoritative perception of the landscape."

The government-funded educational website Artifacts B.C. (n.d.) describes the origin and meaning of the Grid, or "Borden System," using the Indigenous village site of Kosapsom, Vancouver Island, as an example:

In Canada, all archaeological sites are coded by what is known as the "Borden System." It assigns each location a sequence of 4 letters (DeRu) and a number (4)

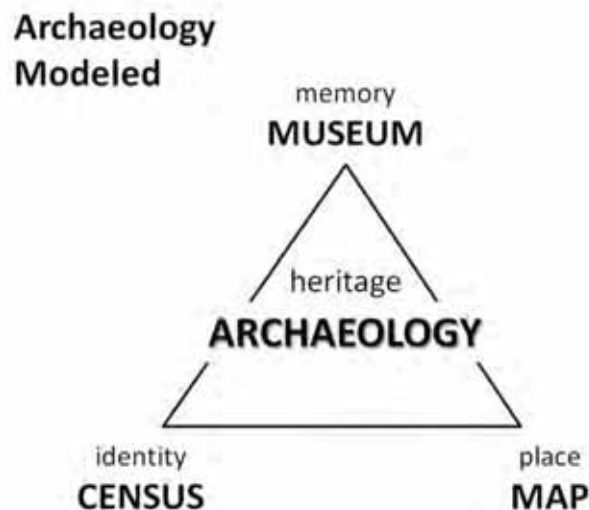


Fig. 3 A new view of archaeology; the convergence of Benedict Anderson's "mechanisms of state control" and Laurajane Smith's vision of CRM as governing Indigenous cultural identity

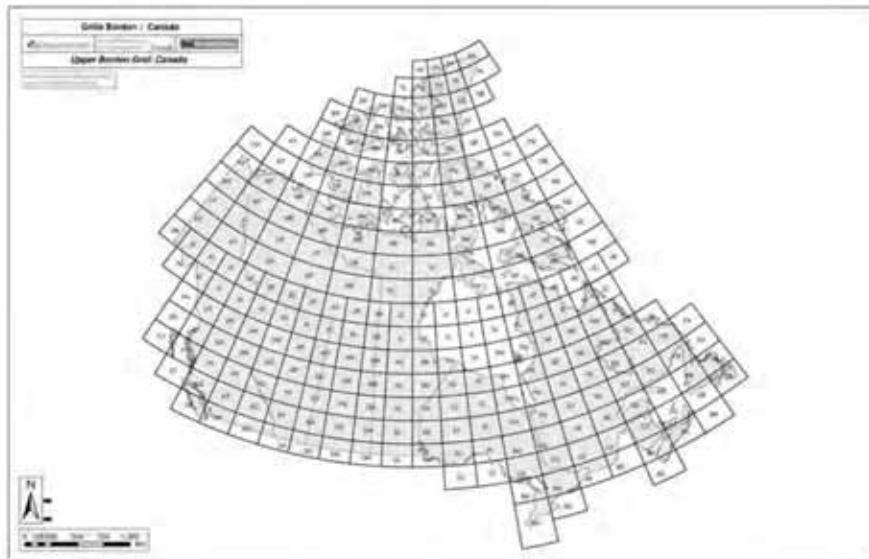


Fig. 4 The Borden Grid (*Grille Borden*), designed by Charles E. Borden in the early 1950s and adopted nationally soon thereafter, exemplifies the total classificatory grid. To wit, it is colonialism in action, (after Government of Canada 2007)

relating to a fixed map code. Borden numbers were invented by Charles E. Borden at the University of British Columbia in 1954. Canada was divided into a grid of main map units of 2° (degrees) latitude (high) by 4° longitude (wide). Latitudinal co-ordinates are assigned capital letters from A through U from south to north and longitude is designated by capital letters A through V from east to west. Each 2°×4° main unit (192×300 km) is further sub-divided into 10 min (') sub-units designated by lower case letters from south to north (latitude) and east to west (longitude). For example, in DeRu4, the first two letters indicate the site is in one of the 16 km wide grid squares in the latitudinal 'D' square, and the last 2 letters likewise show the grid position on the longitude. The number '4' after the four letters means it was the fourth site found within a 16×16 km unit.

In this (convoluted) way, Indigenous cultural landscapes (Kosapsom) are scientized (DeRu-4), transformed into generic, state-registered archaeological "sites" and "resources," and thereby made market-ready. The Borden System—and others around the world (in the US, the Smithsonian Trinomial)—operates through the process of renaming. This is the main technique the state uses to colonize Indigenous heritage landscapes, and archaeology is—*thus archaeologists are*—directly implicated in this process.

Lawrence Berg (2011, pp. 13–14) discusses naming as a means to "symbolically and materially solidify current (and historical) processes of capitalist accumulation by dispossession." Specifically, "*banal and uncontested* forms of naming help to hide socio-spatial relations of dispossession." In light of the "dispossession of Aboriginal peoples and their continued marginalization through 'ongoing colonialism,'" Berg

provides an important vantage from which to consider the “violence” of archaeology, discussed below.

Dispossession and its byproduct, dislocation, are central to the second component of our model of archaeology. Laurajane Smith’s (2004, p. 11) critique of CRM suggests the practice arose from the need “to help govern a range of social problems,” especially those posed by Indigenous peoples in colonial contexts like Australia and Canada. As Smith (2004, p. 11) describes,

The whole process of CRM, which emphasizes the technical application of knowledge and expertise, works effectively to render wider political debates about the legitimacy of cultural and social claims on the past as non-political... This then renders “heritage,” and the claims made about it, more readily “governable.” The governance of heritage facilitates the de-politicization of Indigenous claims about cultural identity. This has significant consequences for Indigenous people.

Archaeology thus operates as a technology of government, producing and mobilizing knowledge in support of state interests, economic and otherwise. This idea is well-established; as Don Fowler (1987, p. 241), Society for American Archaeology President from 1988 to 1991, articulated decades ago, “interpretations, or uses, of the past are seldom value neutral”:

In various nation states at various times, some archaeologists have analyzed and interpreted the past to fit the ideological requirements of those states. That is one end of the spectrum. The other is the implicit and therefore unquestioned acceptance of ideological tenets and values from within the archaeologist’s culture and how they influence the archaeologist’s use of the past.

Historically, the concern was about how academic archaeologists’ interpretations of the past work “in service of the state.” What Fowler and others (e.g., Trigger 1989) do not address is archaeology in the form of compliance or commercial archaeology. This oversight is critical because academic archaeology (theory) and compliance archaeology (practice) are two halves of a whole, philosophically and institutionally. As such, academic archaeologists cannot disassociate themselves from CRM.

Today, resource management scholars see bureaucratic institutions as containing the “seeds of failure” (Acheson 2006, p. 124; see also King 2009). Sociologist Sylvia Hale (1990, pp. 518–519) describes a major design flaw:

The loyalty of officials lies not with the general public or the electorate, but with the bureaucracy itself. Their vocation is to serve their official duties... Those who work as employees within the bureaucracy are even more rigidly subject to its regulations. They operate as cogs in the machine. The major requirement for their position is unquestioning and strict adherence to written regulations within their narrowly defined areas of jurisdiction. Their individuality has no place within such a system, for it would disrupt the calculated order.

Archaeologists who operate in this system—referred to as “archaeobureaucrats” by Joshua Dent (2012)—“are paid to assess projects, apply for permits, carry out

fieldwork, write technical reports, and in effect ‘manage’ resources” (Lyons et al. 2012, p. 8). Critique of this system is implicitly discouraged simply by virtue of being affiliated with this imagined community, sharing in its beliefs, and deriving from it one’s identity. Indeed, as the responses discussed above demonstrate, archaeobureaucrats *feel* they do not have any control over the system, all the while they are reproducing it every day.

For this reason, archaeology/CRM represents a very powerful thus potentially dangerous form of statecraft, rationalized and justified by the academy, and carried out and reinforced by the industry. As a form of disaster capitalism operating in neoliberal interests, the impact of this project is significant.

Archaeology as Violence

In the later stages of an epic worldwide struggle, the forces of Western economic development are assaulting the remaining Native peoples of the planet, whose presence obstructs their progress. Mander (1991)

Archaeologists have created a thought world which serves to support their own power and privilege, harms the interests of American Indian people, and aids the on-going cultural genocide focused on Native Americans. Custer (2005)

Is there a market price for ethnic cleansing and environmental damage?
Tommasino et. al. (cited by Funari 2001)

Neoliberal rationalism is linked to poverty, inequality, and violence (Springer 2011; see also Giroux 2014). The results of neoliberalism are all around us, observes Henry Giroux, “ranging from ecological devastation and widespread economic impoverishment to the increasing incarceration of large segments of the population marginalized by race and class” (Polychroniou 2013, n.p.). Neoliberalism, what Giroux calls the “latest stage of predatory capitalism,” is a political and economic project that constitutes an ideology, mode of governance, policy, and form of public pedagogy (Polychroniou 2013, n.p.). By recognizing the structural violence of neoliberalism is everywhere, “‘local’ experiences of violence that seemingly occur in isolation from the wider matrix of space are in fact tied to the ‘global,’ which renders violence somewhat ‘everyday’” (Springer 2011, p. 95).

As neoliberal statecraft, archaeology is prone to violence. Within the processes of colonialism and capitalism, archaeology as a technology of government operates to “clear” Indigenous heritage landscapes (Blaser et al. 2004; Smith 2008) and open up their resources to extraction and development. In exchange for access, Indigenous communities are placated with such “cultural crumbs” (Gnecco 2012) as reports, videos, school booklets, or a local museum, and sometimes even the “privilege” to be able to participate in the “management” of one’s own heritage. Archaeologists profit directly from this unfolding disaster—the driving force behind the creation of the profession in the first place—and the loss of natural and cultural heritage is the result (Foster et al. 2010).

Our goal here is to neither “prove” that neoliberalism (nor capitalism) is violent nor that archaeology, as a consequence of being neoliberal statecraft, is inherently violent also. This case has already been made, in a variety of contexts and many times over, locally, nationally, and globally. Rather, our concern is that archaeology—*thus archaeologists*—continues to “forget” this ongoing legacy of violence.

Archaeological violence is manifested on the ground through what Bruce Alexander (2008) calls “dislocation” and Glenn Albrecht (2005) “solastalgia.” Working in a poverty-stricken neighborhood with a high Indigenous population in urban Vancouver, British Columbia, Alexander demonstrates how neoliberal policies dislocate Indigenous individuals from their past and present, often resulting in addiction, homelessness, and violence. Albrecht (2005) uses the term solastalgia to characterize distress caused by dislocation from one’s environment, including pain, loss, and feeling unable to derive solace from the present, resulting in serious physical and mental health problems. This condition is prevalent in Indigenous communities that are strongly connected to “country.” In their study of solastalgia and cultural resource management in colonial Australia, Sutton et al. (2013, pp. 7–8) describe “Indigenous attachment to the environment as an intimate spiritual connection; the impacts of coal mining therefore not only destroy that environment but irrevocably damage people’s connections to country.”

The destruction of Indigenous heritage is directly implicated in not just ecocide, but ethnocide and genocide. However, the problem in identifying solastalgia in the context of heritage destruction is that it is a “slow” process, and thus difficult to see (Nixon 2011a). As Rob Nixon articulates (2011b), slow violence “is neither spectacular nor instantaneous but instead incremental, whose calamitous repercussions are postponed for years or decades or centuries.” Archaeology is slow violence because the loss of heritage landscapes is incremental and rarely newsworthy. As an apparatus of the state, archaeology is entangled in the slow but ongoing process of colonization.

Within archaeology, this violence is viewed as an externality—as something “outside” the institution. It is thus seen as being outside “our control,” and part of the permanent structure within which archaeologists operate. This is what Hutchings (2013) referred to as “siloing,” whereby archaeologists look at problems “in isolation, so we don’t see the whole picture” (Homer-Dixon 2006, p. 17). The role of archaeobureaucrats in reproducing the structure is thus made invisible: it is in the everyday and in the banality of simply doing one’s job (Arendt 1963) that such structure is sedimented and slow violence unfolds.

Conclusion: Archaeology and the Banality of Evil

What is most dangerous in violence is its rationality. Of course violence itself is terrible. But the deepest root of violence and its permanence come out of the form of rationality we use. Foucault (1996)

The sad truth is that most evil is done by people who never make up their minds to be good or evil. Arendt (1978)

To disentangle archaeology is to understand its rationality: an institutional amnesia about its daily practice as commercial, contract, or compliance archaeology. We suggest that archaeology’s energy or inertia as a form of disaster capitalism is derived primarily

(>97 %) from accumulation through dispossession, or neoliberal violence. In Northern America (Canada and US), that violence is directed almost entirely toward Indigenous peoples and their heritage, reflecting an obvious but rarely discussed racial component to compliance archaeology in colonial settings.

Archaeology today is a billion dollar project in Northern America. As such, we propose adopting the term “heritage industry” to highlight the corporate nature and industrial scale of the archaeology/CRM institution. As late modern statecraft, archaeology is disaster capitalism *par excellence*, characterized by specialist managers (archaeobureaucrats) “clearing” Indigenous heritage from the landscape, making way for economic development. This is achieved by first converting cultural heritage landscapes into archaeological sites, then, when development is to occur, converting archaeological sites into shoeboxes and PDF reports.

Indigenous heritage destruction is deemed rational by archaeologists because the acts of violence are shrouded in the sacrosanct thus taken-for-granted veil that is science and scientific neutrality. In this way, the role of academics in the violence of archaeology extends well beyond the fact that they alone discipline professional archaeologists in the skill-set of compliance. In their teaching and in their silence, academic archaeologists legitimize compliance archaeology, in the process validating “authorized” and “official” heritage discourses that emanate from and (re)produce the capitalist ideology of resourceism.

Seeing archaeology as violence has significant implications for the profession. Recently, the World Archaeological Congress (2013) passed the following resolution: “It is unethical for Professional Archaeologists and academic institutions to conduct professional archaeological work and excavations in occupied areas possessed by force.” In colonized or occupied places like British Columbia, this resolution presents a seemingly intractable dilemma for the discipline’s practitioners, academic and consulting alike.

We end with a prediction and a new point of departure. We predict that there will be little to no meaningful challenge to the assertions made here. We certainly do not think that anyone will “refute the central point” that archaeology is neoliberal statecraft and/or disaster capitalism. The reason, in part, is because truly engaging with the problem means “committing explicitly” to the issues at hand. Another reason, wholly related to the first, is that truth-telling is an extraordinarily difficult task, certainly for the individual, and more so for an entire culture. This recognition forms our new baseline, a challenge set out by Ian Angus (2013): “The first step is to tell the truth—about the danger we face, about its causes, and about the measures that must be taken to turn back the threat. In a time of universal deceit, telling the truth is a revolutionary act.”

References

- Acheson, J. M. (2006). Institutional failure in resource management. *Annu Rev Anthropol* 35: 117–134.
- Albrecht, G. (2005). Solastalgia, a new concept in human health and identity. *Philos Act Nat* 3: 41–44.
- Alexander, B. K. (2008). *The globalization of addiction: a study in poverty of the spirit*, Oxford University Press, New York.
- American Cultural Resources Association (ACRA) (2013). The cultural resources management industry: providing critical support for building our nation’s infrastructure through expertise in historic preservation. <<http://acra-crm.org/associations/9221/files/ACRA%20Handout%20FINAL-revis4.pdf>>

- Anderson, B. (2006). *Imagined communities: reflections on the origin and spread of nationalism*, Verso, London.
- Angus I (2013) The myth of “environmental catastrophism. *Mon Rev* 65(4). <<http://monthlyreview.org/2013/09/01/myth-environmental-catastrophism>>
- Arendt, H. (1963). *Eichmann in Jerusalem: a report on the banality of evil*, Penguin, New York.
- Arendt, H. (1978). *The life of the mind*, Harcourt Brace Jovanovich, New York.
- Arnold, B. (2014). Erasure of the Past. In Smith, C. (ed.), *Encyclopedia of global archaeology*, Springer, New York, pp. 519–520.
- Artifacts BC (n.d.) Labels. <<http://bcheritage.ca/artifacts/kosapsom/labels.htm>>
- Berg, L. D. (2011). Banal naming, neoliberalism, and landscapes of dispossession. *ACME Int E J Crit Geogr* 10(1): 13–22.
- Blaser, M., Feit, H. A., and McRae, G. (eds.) (2004). *In the way of development: indigenous peoples, life projects and globalization*, Zed Books-International Development Research Center, London.
- Bodley, J. H. (2008). *Victims of Progress*, AltaMira, Lanham.
- Borden, C. E. (1950). *Letter to Dr. Harry B. Hawthorn, Nov. 10, 1950, Royal British Columbia Museum. Victoria, B.C. Copy sent to Wilson Duf*, British Columbia Provincial Museum, Victoria.
- Carlson, R. L. (1979). C. E. Borden’s archaeological legacy. *BC Stud* 42: 3–12.
- Custer, J. F. (2005). Ethics and the hyperreality of the archaeological thought world. *North Am Archaeol* 26(1): 3–27.
- Dent J (2012) Past tents: temporal themes and patterns of provincial archaeological governance in British Columbia and Ontario. Master’s thesis, University of Western Ontario, London. <<http://ir.lib.uwo.ca/etd/717/>>
- Doyle A (2013) Pre-Viking tunic found by glacier as warming aids archaeology. March 21. <<http://uk.reuters.com/article/2013/03/21/us-climate-archaeology-idUKBRE92K0V320130321>>
- Flatman, J. C. (2007). The origins and ethics of maritime archaeology, part II. *Public Archaeol* 6(3): 163–176.
- Flatman, J. C. (2012). What the walrus and the carpenter did not talk about: maritime archaeology and the near future of energy. In Rockman, M., and Flatman, J. (eds.), *Archaeology in society: its relevance in the modern world*, Springer, New York, pp. 167–192.
- Flemming, N. C. (ed.) (2004). *Submarine prehistoric archaeology of the North Sea: research priorities and collaboration with industry*, English Heritage/Council for British Archaeology, Bootham.
- Foster, J. B., Clark, B., and York, R. (2010). *The ecological rift: capitalism’s war on the earth*, Monthly Review Press, New York.
- Foucault, M. (1996). *Foucault live: collected interviews, 1961–1984*, Semiotext(e), York New.
- Fowler, D. D. (1987). Uses of the past: archaeology in the service of the state. *Am Antiq* 52: 229–248.
- Funari, P. P. A. (2001). Public archaeology from a Latin American perspective. *Public Archaeol* 1(4): 239–243.
- Giroux, H. A. (2014). *The violence of organized forgetting: thinking beyond America’s disimagination machine*, City Lights Publishers, San Francisco.
- Gnecco, C. (2012). Europe and the people without archaeology. In Van der Linde, S. J., van de Dries, M. H., Schlanger, N., and Slappendel, C. G. (eds.), *European archaeology abroad: global settings, comparative perspectives*, Sidestone Press, Leiden, pp. 387–399.
- Gnecco C, Dias AS (2013) 2013 WAC Inter-Congress Announcement, “Disentangling Contract Archaeology.” <<https://www.facebook.com/wacscprofile/posts/436963356389704>>
- Government of Canada (2007) Grille Borden/Borden Grid. <<http://www.historymuseum.ca/cmc/archeo/sites/pdf/bordengrid-canada.pdf>>
- Graham P (2008) How to disagree. <<http://www.paulgraham.com/disagree.html>>
- Hale, S. M. (1990). *Controversies in sociology: a Canadian introduction*, Copp Clark Pitman, Mississauga.
- Hamilakis, Y., and Duke, P. (eds.) (2007). *Archaeology and capitalism: from ethics to politics*, Left Coast Press, Walnut Creek.
- Harvey, D. (2003). *The new imperialism*, Oxford University Press, New York.
- Hobsbawm, E. (1992). Inventing traditions. In Hobsbawm, E., and Ranger, T. (eds.), *The invention of tradition*, Cambridge University Press, Cambridge, pp. 1–14.
- Homer-Dixon, T. (2006). *The upside of down: catastrophe, creativity, and the renewal of civilization*, Vintage Canada, Toronto.
- Hutchings R (2013) Hard times bring hard questions: Is archaeology pro-development? Is it classist? Colonialist? Imperialist? Racist? Paper presented at the Canadian Archaeological Association Conference, Whistler, BC. <<http://ubc.academia.edu/RichardHutchings>>

- Hutchings R, La Salle M (2013) Five thoughts on commercial archaeology. <http://www.academia.edu/3373567/Five_Thoughts_on_Commercial_Archaeology, 28April 2013>
- Hutchings, R., and La Salle, M. (2014). Teaching anti-colonial archaeology. *Archaeologies* 10: 27–69.
- Kahan, D. M., Jenkins-Smith, H., and Braman, D. (2011). Cultural cognition of scientific consensus. *J Risk Res* 14: 147–174.
- King, T. F. (2009). *Our unprotected heritage: whitewashing the destruction of our cultural and natural environment*, Left Coast Press, Walnut Creek.
- Klein, N. (2007). *The shock doctrine: the rise of disaster capitalism*, Henry Holt, New York.
- La Salle, M. (2010). Community collaboration and other good intentions. *Archaeologies* 6: 401–422.
- La Salle, M. (2014). The trouble with “co-”. *Inst Crit Herit Tour Bull* 2014(2).
- La Salle, M., and Hutchings, R. (2012). Commercial archaeology in British Columbia. *Midden* 44(2): 8–16.
- Lyons, N., Cameron, I., Hoffmann, T., and Miller, D. (2012). Many shades of grey: dispelling some myths about the nature and status of CRM in British Columbia, a response to La Salle and Hutchings. *Midden* 44(3/4): 6–8.
- Mander, J. (1991). *In the absence of the sacred: the failure of technology and the survival of the Indian nations*, Sierra Club Books, San Francisco.
- Mander, J., and Tauli-Corpuz, V. (eds.) (2006). *Paradigm wars: indigenous peoples' resistance to globalization*, Sierra Club Books, San Francisco.
- Marx, K. (1867). *Capital volume 1: a critique of political economy*, Vintage Books, New York.
- Matson, R. G., and Coupland, G. (1995). *The prehistory of the northwest coast*, Academic, San Diego.
- McNiven, I. J., and Russell, L. (2005). *Appropriated pasts: indigenous peoples and the colonial culture of archaeology*, AltaMira Press, Lanham.
- Muckle R (2013a). Perceived conflicts in archaeology-for-profit. *Anthropology News*, June. <<http://www.anthropology-news.org/index.php/2013/09/30/perceived-conflicts-in-archaeology-for-profit/>>
- Muckle,R (2013b). Reflecting on collaborative archaeology with Indigenous peoples. *Anthropology News*, May. <<http://www.anthropologynews.org/index.php/>>
- Nixon, R. (2011a). *Slow violence and the environmentalism of the poor*, Harvard University Press, Cambridge.
- Nixon R (2011b) Slow violence: literary and postcolonial studies have ignored the environmentalism that often only the poor can see. *Chron High Edu*. <<http://chronicle.com/article/Slow-Violence/127968/>>
- Olivier, L. (2013). The business of archaeology is the present. In González-Ruibal, A. (ed.), *Reclaiming archaeology: beyond the tropes of modernity*, Routledge, New York, pp. 117–129.
- Polychroniou CJ (2013) Neoliberalism and the politics of higher education: an interview with Henry A. Giroux. *Truthout*. <<http://truth-out.org/news/item/15237-predatory-capitalism-and-the-attack-on-higher-education-an-interview-with-henry-a-giroux>>
- Rocket000 (2008). A triangular graphic representing a “hierarchy of disagreement.” <http://upload.wikimedia.org/wikipedia/commons/a/a7/Graham%27s_Hierarchy_of_Disagreement1.svg>
- Russell, B. (1930). *The conquest of happiness*, George Allen & Unwin, London.
- Sampeck, K. E. (2014). From ancient altepetl to modern municipios: surveying as power in colonial Guatemala. *Int J Hist Archaeol* 18: 175–203.
- Schuldenrein J (2013) The growth and influence of the oil and gas industry on contemporary archaeology. *Voice Am*. <<http://www.voiceamerica.com/episode/67438/the-growth-and-influence-of-the-oil-and-gas-industry-on-contemporary-archaeology>>
- Shanks, M., and Tilley, C. (1987). *Re-constructing Archaeology: theory and practice*, Cambridge University Press, Cambridge.
- Smith, L. (2004). *Archaeological theory and the politics of cultural heritage*, Routledge, London.
- Smith, A. (2008). Landscapes of clearance: archaeological and anthropological perspectives. In Smith, A., and Gazin-Schwartz, A. (eds.), *Landscapes of clearance*, Left Coast Press, Walnut Creek, pp. 13–24.
- Springer, S. (2010). Neoliberalism and geography: expansions, variegations, formations. *Geogr Compass* 4(8): 1025–1038.
- Springer, S. (2011). Violence sits in places? Cultural practice, neoliberal rationalism, and virulent imaginative geographies. *Polit Geogr* 30: 90–98.
- Sutton, M. J., Huntley, J., and Anderson, B. (2013). “All our sites are of high significance”: reflections from recent work in the Hunter Valley: archaeological and Indigenous perspectives. *J Aust Assoc Consult Archaeol* 1: 1–15.
- Trigger, B. (1989). *A history of archaeological thought*, Cambridge University Press, Cambridge.

- West RG (1995). Saving and Naming the Garbage: Charles E. Borden and the Making of B.C. Prehistory. Master's thesis, University of British Columbia, Vancouver.
- World Archaeological Congress (WAC) (2013) *Newsletter*, December. <<http://www.worldarchaeologicalcongress.org/component/content/article/67-headlines/614-wac-december-2013-enewsletter-volume-42>>
- Yellowhorn E (2013) Whither the heritage conservation act: renewal or funeral? Plenary session, 2013 Canadian Archaeological Association Conference, Whistler, BC, May 15–19, 2013. <<http://canadianarchaeology.com/caa/sites/default/files/page/Whistler2013Programme-may-3.pdf>>

Comment Letter 13a Attachment 5

SAVE THE BEST SALT MARSH IN SOUTHERN CALIF STOP THE LOS CERRITOS WETLANDS RESTORATION AND OIL CONSOLIDATION PROJECT

The Los Cerritos Wetlands Restoration and Oil Consolidation Project actually threatens wetlands and expands oil drilling!

It begins with a land swap between the LCWA, the Los Cerritos Wetlands Authority and Beach Oil Mineral Partners (Synergy Oil partner) which and ends up:

Drilling new oil and water wells on land acquired in a settlement from Southern California Edison specifically for the purpose of restoring the Los Cerritos Wetlands

Bulldozing channels to connect the ancient healthy salt marsh with ponds and soils contaminated from years of oil operations on the property

Ignoring LCWA's mandate to be stewards of the wetlands and violating the LCWA Wetlands Restoration Plan which states that the hydrology of the ancient living salt marsh will not be altered.

13a-52

Drilling and operating 120 new wells before removing any of the 52 old oil wells in the wetlands, and allowing 40 years for all old wells and contamination to be removed.

Drilling 120 new oil and water wells on either side of the Newport Inglewood earthquake fault and using slant drilling and water injection to extract up to 200 million barrels of oil. Building new pipelines, including a connecting pipeline to transport oil over the fault.

Treating contaminated waste water on site and re-injecting it beneath the wetlands to prevent subsidence. Risks include polluting the wetlands and Alamitos Bay with oil, chemical cleaners (acidization), and waste water from drilling practices and accidents, including spills and pipeline leaks. Injection wells have also caused earthquakes.

Releasing methane gas and other pollutants into the air.

Prioritizing oil company profits over environmental and cultural concerns.

Denying the Tongva, Acjachemen and other tribal peoples their sovereign right to have their sacred sites preserved and the wetlands ecosystem protected.

Contact the LCWA, mstanley@rmc.ca.gov, Suzie Price district3@longbeach.gov (562) 570 6300, and Roberto Uranga district7@longbeach.gov (562) 570 7777 (both are LCWA board members). Demand full disclosure of the risks posed by this project!

Comment Letter 13a Attachment 6



13a-53

Comment Letter 13b

Subject: FW: Response to Los Cerritos Wetlands Restoration and Oil Consolidat'on Project DEIR and any and all permit applications for this project

From: Christensen George [<mailto:achris259@yahoo.com>]

Sent: Wednesday, September 06, 2017 4:29 PM 13b-2

To: Craig Chalfant <Craig.Chalfant@longbeach.gov>

Subject: Response to Los Cerritos Wetlands Restoration and Oil Consolidat'on Project DEIR and any and all permit applications for this project

As an individual, I also submit my objections to this project, for the same reasons stated by LBAPN. Anna Christensen.
See attached documents for details.

13b-1

Comment Letter 13b Attachment 1

September 6, 2017

From: The Long Beach Area Peace Network (contact person: Anna Christensen)

To: Craig Chalfant, Planner, LBDS

Response to the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR
and project applicant's request for any and all additional permits

The Long Beach Area Peace Network opposes the Los Cerritos Wetlands Restoration and Oil Consolidation Project and finds the DEIR for the project to be fatally flawed. We also oppose the granting of any and all permits for the project by those agencies empowered to do so. As a peace and social justice organization we will not stand by while our city government continues to promote public and private projects which pose real threats to public safety, to our fragile environment, to marginalized populations, and to our future generations. We insist that the concerns we have outlined in the document, SOME FACTS AND QUESTIONS ABOUT BOMP's LOS CERRITOS WETLANDS RESTORATION AND OIL CONSOLIDATION PROJECT (see attached) be addressed and submit this document as part of our official comments to the DEIR.

In brief, this DEIR fails to address the negative impacts posed by the Los Cerritos Wetlands Restoration and Oil Consolidation Project to
sensitive biological resources

air quality

water quality

water ways

public safety (including potential loss of life and property damage posed by seismic activity given the additional adverse impact of high pressure drilling and the treatment and transportation of millions of gallons of toxic fluids)

climate change/sea rise

public recreation

tribal cultural sites and activities

historic and archaeological sites

quality of life for residents and property values

We find that the project as proposed would violate CEQA, the California Coastal Act, the Local Coastal Permit of the City of Long Beach, the General Plan of the City of Long

13b-2

Beach (including Local Historic Preservation Element, Goal 1: Maintain and support a comprehensive, citywide historic preservation program to identify and protect Long Beach's historic, cultural, and archaeological resources), the mandate of the LCWA, numerous laws affirming the rights of Indigenous Peoples (including non-federally recognized California Indian Tribes), and the Public Trust Doctrine as regards waterways.

Additionally, we believe that the City of Long Beach, as the lead agency on this project, has failed to conduct adequate public outreach, especially in light of the history of public support for the Los Cerritos Wetlands, the additional and simultaneous impact of SEASP zoning changes on the wetlands and residents of the area, and the fact that the project directly involves the public as landowners who face potential property damage and serious liabilities for any and all of the project's potential negative impacts as stated above.

We also note that Beach Oil Mineral Partners has engaged in an ongoing disinformation campaign to persuade the community that their priority is wetlands restoration and that their project will be the salvation of our long-neglected Los Cerritos Wetlands. We see BOMP's recent public offer to "endow" the non-profit Los Cerritos Wetlands Land Trust as a blatant effort to buy support from an organization with a history of opposing commercial development in the Los Cerritos Wetlands. As a condition for reviewing the DEIR and any and all other permits, we think that public agencies and officials should learn more about the identity and viability of this new corporation, especially given that the DEIR calls for proposed new oil operations to be up and running before a single old well is decommissioned under a 40 year plan to hide and expand, not remove or reduce, ongoing oil extraction in and around the Los Cerritos Wetlands. For starters, it is reasonable to ask if BOMP's Synergy Partner is the multi-national Synergy Oil Company and, if so, to question the impact of placing a fragile public resource in foreign hands. It is also appropriate to learn exactly what chemicals will be used to "treat" the water that will be re injected into the wetlands after the oil is removed, and what effect this "treated" brew will have on our environment.

LBAPN submits the following additional comments to the DEIR:

13b-2
(cont.)

- 1) The Project Goals fail to address the relevance of the project area to tribal peoples, most specifically Southern California tribes with a spiritual and physical connections to the Los Cerritos Wetlands, Puvungna, and Motuucheyngna. Project goals do not include any commitment to the preservation of Tribal cultural resources. Project goals do not include BOMP's for-profit goal of extracting 200 million barrels of oil from beneath the Los Cerritos Wetlands and surrounding area. Nor do the Project Goals acknowledge that the mitigation bank is also a for-profit operation. The Project Goals greenwash an oil company's ruthless assault on the Los Cerritos Wetlands and in true Orwellian fashion promote the project as wholly in the public interest.
- 2) The LCWA property referred to in the DEIR cannot not be legally conveyed to BOMP to be used as a site for oil drilling operations. To bury the transfer of this public property into private hands in a project where the LCWA does not assume the role of project developer or lead agency violates the public trust. The LCWA was established to protect and restore the Los Cerritos Wetlands, period. As wetlands' "stewards," the LCWA may not collude with private parties on projects which in any way have the potential to harm existing biological and cultural resources located in the Los Cerritos Wetlands, whether these be on public or private lands. To do so not only compromises the mission and independence of the LCWA, it raises serious legal concerns as to the expenditure of public monies by and the conflicting interests of member organizations and their representatives on the LCWA board.
- 3) The LBAPN finds the following conclusions of the DEIR to be incorrect:
 - 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.
 - Impact CUL-2: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
 - Impact CUL-4: The project would not disturb any human remains, including those interred outside of formal cemeteries.
 - Cumulative Cultural Resources Impacts: The project would not result in cumulative impacts to cultural resources.
 - Impact TCR-1: The proposed 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).
 - Cumulative Tribal Cultural Resources Impacts: The project would not result in cumulative impacts to tribal cultural resources.

13b-2
(cont.)

The Lead Agency (the City of Long Beach) and the project developer have violated SB 18 and AB 52 (see Tribal Cultural Resources and Cultural Resources)

1) Lack of outreach to and input from affected tribal groups and individuals as required by CEQA, SB 18 and AB 52.

Under SB 18, the City of Long Beach is mandated to establish a working relationship with local tribal peoples and involve them at the earliest possible stages of any development projects that would affect their territory, their cultural/burial/historic sites, and/or their ability to practice their culture. In spite of being provided with contact information and encouraged to reach out to local tribal members and organizations, LBDS has made no effort whatsoever to follow this mandate. Instead, we are expected to believe that local tribal peoples have no interest in preserving the Los Cerritos Wetlands and no opposition to the impending disruption and destruction of the Los Cerritos Wetlands ecosystem and their tribal cultural sites. We are expected to believe that local tribal peoples only want to be contacted once construction begins, and even then, only ask to observe as what remains of their culture is carted off or crushed.

As the DEIR for the Los Cerritos Wetlands Restoration and Oil Consolidation Project makes clear, monitoring jobs will go to the tribal group that has most consistently green lighted development. LBDS in general and this DEIR specifically lacks input from most tribal councils, tribal cultural organizations, and tribal individuals, most especially members of the Tongva and Acjachemen tribes who

- a) advocate for cultural and environmental preservation and protection (ie: United Coalition to Protect Panhe, Sacred Places Institute for Indigenous Peoples, T'iat Society, Keepers of Indigenous Ways, Gabrielino/Tongva Springs Foundation)
- b) represent the local Native American community and are well known public figures active in tribal and civic affairs - specifically those focused on cultural recognition and preservation (ie: Cindi Alvitre, Rebecca Robles, Angela Mooney D'Arcy, Anthony Morales, Matias Morales, Matt Belardes, Joyce Perry, Julia Bogany, Jackie Nunez)
- c) continue to hold ceremony and practice their culture in the Los Cerritos Wetlands (Ancestor Walk and T'iat Society)
- d) have worked to preserve the National Register site of Puvungna and burial and archaeological sites in and around the wetlands

13b-2
(cont.)

e) have commented on and/or expressed their opposition to SEASP rezoning

2. Inadequate assessment of the project's impact on Cultural Tribal Resources

Although the Los Cerritos Wetlands are eligible for Sacred Site and Traditional Tribal Cultural Landscape status, the project applicant has concluded that the project will have no significant impact on Cultural Tribal/Archaeological Resources. Whether through ignorance or intent, the DEIR

- a) fails to adequately describe the history and culture of local tribal peoples
- b) fails to acknowledge and describe how contemporary local tribal peoples, including but not limited to, the Tongva and Acjachemen, view and interact with the Los Cerritos Wetlands and nearby ceremonial sites
- c) fails to acknowledge the impacts of the project as regards the disruption and destruction of the Los Cerritos Wetlands ecosystem in relation to past and present tribal world views which hold that all living beings are relatives deserving of respect whose fates are interconnected.
- d) lacks any discussion of the spiritual, physical, and historic connections of the Los Cerritos Wetlands to Puvungna, a major ceremonial center and National Register site, or to the village of Motuucheyngna where multiple burials have been unearthed
- e) lacks any information about or contribution from representatives of tribal organizations with a history of protecting and preserving the Los Cerritos Wetlands and other significant tribal sites
- f) fails to acknowledge the extent to which evidence of the history and culture of the tribes of coastal Southern California have been erased by development (90+%) and also fails to acknowledge that there are no mitigation measures that do not contribute to this pattern
- g) Assumes the position that any potential negative impacts of the project can be mitigated and fails to consider the only option that can reasonably be expected to avoid damage to cultural and biological resources - No project, no impact.
- h) "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" After stating in Impact CUL-4 that the project would not disturb any human remains, the DEIR goes on in Mitigation Measure CUL-6 to describe how such disturbed remains would be handled by the Kizh Nation, "a consulting party for the

13b-2
(cont.)

project under AB 52." The treatment and final disposition of "sacred sites" assumes, incorrectly, that the project area as a whole holds no spiritual value to tribal peoples.

- i) This DEIR assumes that agreements regarding tribal cultural properties can be entered into with a single tribal entity, in the context of a "Native American Monitoring Agreement, under a "Treatment Plan" with a "qualified archaeologist" supervised by an individual that meets standards set by the Secretary of the Interior. Such "business as usual" protocols are nothing other than the institutionalized continuation of colonialism and the conquest of indigenous lands and peoples. Tribal peoples have the legal right to be equal partners in decisions regarding the environment and tribal cultural resources. Private property owners, private developers, city, state, and federal agencies cannot afford to ignore the mounting challenges that unchecked development, especially the fossil fuel industry, poses locally and globally. Nor can the legitimate concerns and viable solutions put forward by indigenous peoples be dismissed.

LBAPN also concurs with and supports comments submitted by others opposed to the DEIR, including:

- a) Ann Cantrell regarding the illegality of the transfer of the LCWA site for the purpose of oil operations
- b) Long Beach 350 regarding the project's contribution to global warming
- c) The California Cultural Preservation Alliance regarding the lack of consultation with tribal peoples and the project's impact on cultural and natural resources²⁴⁻¹

See attached materials for additional comments, documents and positions referenced in this commentary, and additional evidence for LBAPN's position.

13b-2
(cont.)

Comment Letter 13b Attachment 2

SOME FACTS AND QUESTIONS ABOUT BOMP'S LOS CERRITOS WETLANDS RESTORATION AND OIL CONSOLIDATION PROJECT

Public land, acquired in a settlement with Southern California Edison specifically for the purpose of restoring the Los Cerritos Wetlands, will be used by Beach Oil Mineral Partners (BOMP) to drill new wells, allowing the extraction of up to 200 million barrels of oil from beneath the Los Cerritos Wetlands and surrounding areas.

BOMP's oil consolidation project will drill 120 new wells, adding pipelines, water treatment facilities, storage units, and offices, before removing any of its 53 old oil wells in the wetlands. After new oil operations are up and running, BOMP will have up to 40 years to remove old wells, pipelines, storage tanks, and contaminated soil and water.

Air will be exposed to pollution from methane gas and other toxins as oil is extracted. Massive amounts of water will be injected under pressure to dislodge and replace oil.

BOMP's oil consolidation involves diagonally drilling 120 new oil, water injection and water source wells on either side of the Newport Inglewood earthquake fault and building more pipelines, including one to transport oil over the fault. Our wetlands are subject to liquefaction, any sudden stress can cause solid ground to become soup.

Contaminated waste water will be treated on site and re-injected into the wetlands to prevent subsidence. Groundwater, the wetlands, and Alamitos Bay will be vulnerable to contamination from oil, chemical cleaners, and waste water due to drilling methods, possible accidents (including spills and pipeline leaks), and earthquakes.

BOMP's wetlands restoration plan includes bulldozing channels to drain ponds and soils contaminated from years of oil operations on its property into ancient healthy wetlands (the best salt marsh in Southern Calif).

13b-3

The Los Cerritos Wetlands Authority's Wetlands Restoration Plan states that the hydrology of these ancient living wetlands, will not be altered. To do so could destroy this fragile ecosystem. Alternative methods removing contamination are in place.

BOMP's wetlands restoration will be funded by BOMP's mitigation bank. Investors will earn "pollution credits" to offset their own environmentally damaging projects elsewhere.

BOMP's project will destroy sacred sites of the Tongva, Acjachemen, and other local tribal peoples, erasing their history and impacting their ability to maintain their culture.

In response to concerns regarding earthquakes, Susan Hough, of the US Geological Survey states: Regarding the Los Cerritos Wetlands Restoration and Oil Consolidation Project, a few basic questions that any seismologist would reasonably ask are:

1. How deep will production and wastewater wells be?
2. How close will wells be to known faults (both major and secondary)?
3. Will there be a "stop-light" system in place to monitor seismicity once operations begin (using what data)?
4. Will local seismic monitoring be done? If so, will the data be made available?

Comment Letter 13b Attachment 3

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Archaeology as Disaster Capitalism

Rich Hutchings¹ · Marina La Salle¹

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Abstract Archaeology is a form of disaster capitalism, characterized by specialist managers whose function is the clearance of Indigenous heritage from the landscape, making way for economic development. When presented with this critique, archaeologists respond strongly and emotionally, defending archaeology. Anger emanates from and revolves around the assertion that archaeologists are not just complicit in but integral to the destruction of the very heritage they claim to protect. In what we believe is an act of philosophical and economic self-preservation, mainstream archaeologists actively forget the relationship between archaeology, violence, and the global heritage crisis. Securely defended by its practitioners, archaeology therefore remains an imperial force grounded in the ideology of growth, development, and progress.

Keywords Compliance archaeology · Neoliberal statecraft · Disaster capitalism · Landscapes of clearance · Slow violence

Introduction: the Business of Archaeology

The business of archaeology is the present. Olivier (2013)

Insofar as the business of archaeology is the present, it is also the business of the state and of late modern capitalism. In this essay, we deconstruct reactions to three events directly relevant to the project that is

✉ Rich Hutchings
richard.hutchings@viu.ca

Marina La Salle
marina.lasalle@viu.ca

¹ Department of Anthropology, Vancouver Island University, and Institute for Critical Heritage and Tourism, British Columbia, Canada

“disentangling” archaeology (Gnecco and Dias, this volume). The three events of concern are:

1. the publication of “Commercial Archaeology in British Columbia” (La Salle and Hutchings 2012);
2. the announcement of the World Archaeological Congress’ (WAC) Inter-Congress “Disentangling Contract Archaeology” (Gnecco and Dias 2013); and
3. our participation in the 2013 Annual Meeting of the Canadian Archaeological Association (Hutchings 2013; La Salle 2014).

What these events have in common, apart from our personal involvement, is that they all concern the business of archaeology.

To analyze reactions to the three events noted above, we employ the classificatory scheme developed by Paul Graham (2008) (Fig. 1). Graham’s “hierarchy of disagreement” is pyramidal, illustrating that most disagreement falls within the lower categories because these are easier to formulate, and are gut emotional responses—“Truly refuting something requires one to refute its central point, or at least one of them. And that means one has to commit explicitly to what the central point is” (Graham 2008, n.p.).

Graham’s hierarchy is useful here because the subject of capitalism’s influence on contemporary society can be psychologically unsettling and debate often becomes



Fig. 1 Paul Graham’s Hierarchy of Disagreement, illustrating the significance of different kinds of responses, ranging from name calling (*bottom*) to refuting an argument’s central point (*top*). Only the top three levels constitute counterargument and refutation. (after Graham 2008 and Rocket000 2008)

emotional and personal. Understanding the rationale behind these emotions is essential as it comprises archaeology's "culture" (Kahan et al. 2011; Shanks and Tilley 1987). As such, the discipline/practice of archaeology/cultural resource management (CRM) can be "disentangled" through a consideration of responses to its critique.

Our analysis of contemporary archaeological practice affirms it as neoliberal statecraft. As such, understanding the role of archaeologists in this structure requires thinking and talking about archaeology in terms of ideology, bureaucracy, and late modern capitalism, thus globalization and neoliberalization. We conclude that archaeology represents a form of disaster capitalism, characterized by dispossession and violence—a harsh reality that is actively "forgotten" in the culture of archaeology.

Three Exchanges

Exchange 1—Commercial Archaeology in British Columbia

For all of the academic articles, books and conferences that publicize archaeological projects, there is comparatively little written about the business side of the practice. La Salle and Hutchings (2012)

Our study of the business of archaeology (La Salle and Hutchings 2012) was prompted by the observation that CRM represents the majority of archaeological fieldwork where we live, but comparatively little is published on the subject. Using information published by the Archaeology Branch in British Columbia, Canada, we found a 3000 % increase in government permits issued between 1960 and 2011, suggesting that business has been booming, particularly for industrial sectors central to the province's resource extraction economy: forestry, oil and gas, and energy projects. We calculated that 97 % of archaeology undertaken in British Columbia is commercial (Fig. 2). Despite this, few local institutions feature CRM in their curriculum, so practicing CRM archaeologists receive little training in preparation to be heritage managers. What students learn instead of the 97 % is problematic, as we discuss elsewhere (Hutchings and La Salle 2014).

British Columbia Archaeology, 2011



Fig. 2 Virtually all archaeology is compliance archaeology, at least as measured in 2011 in British Columbia, Canada. (after La Salle and Hutchings 2012, p. 10)

Archaeologists commonly sign non-disclosure agreements for the corporations and developers for whom they work, limiting their ability to communicate about the work being done. Thus, there is little opportunity for truth-telling.

Our conclusions destabilized four conventional tropes that we learned in our formal state education in archaeology:

1. archaeology is not about the preservation of sites and materials, but rather is about facilitating the destruction of heritage landscapes;
2. archaeology is not undertaken in the name of research to learn about the past, but is undertaken to fulfill legal and regulatory obligations in the present;
3. archaeologists do not have a responsibility to disseminate their results, except to their clients and the government; and
4. archaeology is not undertaken for the public good, but is instead a private, for-profit enterprise.

Response

Although our critique of archaeology/CRM focused on large corporations, the only written response came from four archaeologists employed by an Indigenous CRM firm—representing the overwhelming minority of archaeologists in the province. Lyons et al. (2012, pp. 6–7) criticized “the tone” of our article as “denigrating and dismissive,” “unnecessarily divisive” and lacking in “solutions.” They contrasted the “dense and complex” nature of politics and CRM with what they saw as an “academic ‘high ground’” espoused in our paper, wherein we “appear to be standing on a pedestal and critiquing from above rather than entering the fray.” Rather than industry, they offered that the Indigenous peoples of British Columbia have been “the most important prime mover on the historical trajectory of CRM archaeology,” and continue to have “considerable influence over CRM practice.”

The authors felt we portrayed CRM archaeologists as “a pack of money-grubbing, ethically-challenged, underachievers who couldn’t land academic jobs.” Rather than a “community [that] willfully sells resources for money,” they countered that CRM “folks” are “generally ethically-grounded, professionally-minded individuals who are committed to the best interests of archaeological resources” and only “make a solid, middle class salary.” They concluded by shifting the conversation:

while we are not able to change the broader workings of this macroenvironment, we *are* able to examine the structure(s) of our working milieux and relationships in order to generate observations, critique, discussion, and debate. Rather than asking who is making the money, we suggest setting our sights higher, and asking how we, as a collective, could work better together in order to manage the archaeological resources that are still extant in B.C. (Lyons et al. 2012, p. 7)

Argument Analysis

Referring to Graham's hierarchy (see Fig. 1), Lyons et al. (2012) relied on the following forms of argument:

Ad hominen

- Dismissing the argument because we not CRM archaeologists *working in the province* and/or are judging from an academic “pedestal”
- Neither discredits the arguments or the evidence used to support them. Further, Hutchings' CRM experience in the United States was ignored.

Responding to tone

- The “tone,” described as “denigrating and dismissive,” was the “primary bone of contention” that Lyons et al. (2012, p. 6) had with the article
- The tone—an immeasurable and perceived quality of any paper—does not negate the arguments or evidence.

Contradiction/counterargument

- Suggesting that Indigenous peoples have been the main drivers behind CRM
- Evidence supporting this claim was not provided. Regardless, this claim does not negate our contention that the economic climate of the province and resulting industry and development are what drive archaeology and thus permits issued. This is therefore counterargument aimed at a different issue.

Refutation

- Countering that archaeologists only make a “modest middle-class wage”
- This refutation does not correspond to any statement made in our article and represents refutation aimed at a different issue. The “modesty” of this wage compared to national averages, however, is discussed later in this paper.

In sum, Lyons and colleagues did not address our central points. However, this argument analysis clarifies the motivations and emotions prompting their response: *the authors understood our critique of the structure of archaeology and of corporatization as a critique of the individuals employed in that structure*. Perceiving an attack upon commercial archaeologists as “money-grubbing” and “ethically-challenged,” the authors countered by humanizing them as “folks” and “professionally-minded.”

They also minimized both the relevance and amount of money involved. The desire to dismiss economics in favor of “higher” discussions about ethics

indicates discomfort with the nature of archaeology under capitalism. It also signals the feeling that these structures are outside of “our control” and thus inevitable. As the authors expressed, the role of people within this system is thus to “work better together” while trying to “avoid ‘biting the hand that feeds’” (Lyons et al. 2012, pp. 7–8).

The following year, British Columbia archaeologist Robert Muckle (2013a) reviewed our paper in the American Anthropological Association’s *Anthropology News*, addressing the ethic of conservation touted in archaeology and the “potential conflicts of interest” for archaeologists “working for large corporations that are development-oriented.” Despite being “shared” digitally over 500 times, no comments were ever posted to the website.

Exchange 2—Disentangling Contract Archaeology

The relationship between archaeology and capitalist expansion appears as an innocent instrumentality, as a mere technical service. Gnecco and Dias (2013)

In April 2013, the WAC Inter-Congress on commercial or contract archaeology was announced (Gnecco and Dias 2013). The abstract opened with a description of CRM archaeology as “the way the discipline engages capitalist expansion, sacrificing its critical stance,” and suggested that archaeologists working for this growing market “have abandoned any possible intervention in contemporary issues in order to dance to the rhythm of money.” Concerns included changing curriculum for this market, working for social justice while complicit in market mandates, the commodification of heritage stewardship, and how capitalism influences archaeological philosophies.

Response

Response to this abstract on the WAC listserv was immediate. People described “the tone” of the abstract as “hyperbolic,” “highly emotionally charged,” “prejudiced,” “unbalanced,” and lacking a “professional manner.” They wrote it portrayed “smugness,” “elitism,” and “a self-serving agenda.” Some felt the abstract was “offensive,” “accusatory,” and “casting aspersions on the ethics of the majority of working archaeologists,” putting them in a “provocatively negative light”; one person called the abstract “xenophobic.”

Others suggested that CRM is not “selling out” and has been used to “expand research and education,” emphasizing that capitalism also produces social “goods.” One person wrote: “corrupt or not, the system is what it is, there is no need for us to judge it one way or the other.” We responded to the maelstrom with our short essay “Five Thoughts on Commercial Archaeology” (Hutchings and La Salle 2013).

Many others applauded the conference organizers for confronting a sensitive and timely issue. Highlighted were the negative experiences of Indigenous peoples with archaeology, a pervasive lack of consultation, and pressure by employers to “get the job done.” People cited both consulting and academic archaeologists as harboring “a powerful lack of morals and ethics.” A few

lamented the restrictions of “policy” as the main force “regulating” archaeological practice.

All told, over fifty emails were posted to the listserv. However, there was no resolution as to either what exactly the problem was or how to make things better.

Argument Analysis

Emotions ran high following the online distribution of the Inter-Congress abstract and responses illustrated how personally people felt its critique. Comments largely fell into two categories:

Ad hominem

- Dismissing the abstract because its authors are not CRM archaeologists and/or are judging from an “elite” position (i.e., an academic “pedestal”)
- The authors’ academic positions do not inherently discredit the suggestions made in the abstract.

Responding to tone

- Described as “offensive,” “accusatory,” “negative,” and “unprofessional”
- The tone does not negate the validity of the abstract’s claims and is more a response to how people *felt* upon reading it.

These responses echo those to our 2012 paper. Central in both was an overwhelming emotional reaction that prompted critique of what people felt was being said—that the motivations of commercial archaeologists are “profit-driven” and unethical. In this way, critique of structure became personalized.

As a result, people felt the abstract and its authors were “unprofessional,” recalling Lyons and colleague’s defense of CRM archaeologists as “professionally-minded.” The assertion of professionalism is a claim to educated middle-class authority and morality, and infers a suite of interrelated conservative class values including avoiding confrontation, striving for balanced positions, and shunning overt political stands. Archaeology as a “profession” inheres these group values (Trigger 1989), expressed succinctly by one person who felt that, “corrupt or not, the system is what it is, there is no need for us to judge it one way or the other.” Thus, similar to Lyons et al. (2012, p. 7), the emphasis was on finding solutions that work *within* capitalism.

Exchange 3—The Canadian Archaeological Association

Whither the *Heritage Conservation Act*? Yellowhorn (2013)

As the WAC conversation concluded, we attended the Canadian Archaeological Association’s 2013 meeting, held in Whistler, British Columbia—the home of the 2010

Winter Olympics. Presenting in separate sessions, we each addressed the relationship between colonialism, capitalism, and archaeology, prompting varied responses.

The Plenary

The plenary session “Whither the *Heritage Conservation Act*: Renewal or Funeral?” featured Indigenous peoples speaking against the ongoing destruction of their heritage. Panelists spoke passionately about government tactics to “erase culture” by “destroying our heritage,” emphasizing “places cannot be replaced” and what was at stake was “preserving a way of life.” They asked archaeologists to help “stop development.” As the plenary discussant, Hutchings (2013) argued that, from its origins to today’s practice (McNiven and Russell 2005; Smith 2004), archaeology is a firmly colonialist project driven by capitalism to produce narratives that remain elitist, racist, and pro-growth, development, and progress.

Response Audience response to Hutchings’ paper was minimal, with one exception. A prominent archaeology professor challenged Hutchings for “picking on archaeologists,” noting that the issues he raised have been discussed “for decades”—that this was “old news.” Referencing development undertaken in Whistler for the 2010 Olympics, she suggested the local Indigenous communities have benefitted through construction of a new cultural center.

After the session, two people approached Hutchings, offering support and adding their own frustration with the lack of meaningful dialogue. The rest of the room had cleared after only a few questions: silence was thus the main response.

Community-oriented Archaeology

La Salle (2014) expanded on a published work (La Salle 2010) to argue that collaboration in archaeology is ideological, used to connote friendship, cooperation, equality, and ethics, yet “success” is defined as accumulation and increase of capital. Inequalities between archaeologists and collaborating communities remain and collaboration is ultimately a compromise—a “trade bead” ensuring the project of archaeology continues with minimal objection from Indigenous peoples. La Salle (2014, p. 9) concluded: “Just like the Archaeology Branch, archaeologists have the power to throw a wrench in the machine of development that is responsible for the destruction of these meaningful places, and it’s simple: *just stop digging*.”

Response In his review, session discussant George Nicholas commented that La Salle’s critique was “important,” adding that the issue of protecting heritage is an “urgent matter.” Following the conference, Muckle (2013b) published a review of La Salle’s presentation, questioning whether archaeologists pursuing collaborative research “are necessarily motivated by personal, professional, and economic factors,” and suggested that “[j]ust stop digging is a bit strong and more than a bit risky.” Muckle (2013b, n.p.) explained:

While it may be nice to think that many archaeologists are all about assisting Indigenous Peoples, we must realize that ideology is not shared by all in the profession. Archaeology in North America is over a billion dollar a year industry. I sincerely doubt that a significant number of archaeologists will jeopardize their careers by, as La Salle suggests, “just stop digging.”

Although his article was viewed several hundred times online, no one commented.

Argument Analysis Together, our papers suggested that archaeology constitutes a social violence responsible for the destruction of heritage, despite “whitewashing” (King 2009) it as ethical practice concerned with the welfare of descendant communities. The lack of response is therefore surprising. These are serious critiques undermining the ideals of the discipline and practice, academic and consulting alike—yet, what has overwhelmed is the silence.

Those who did publicly respond offered little “argument,” falling into the following categories:

Responding to tone

- Hutchings: described as “picking on archaeologists”
- Conveys discomfort with the topic rather than an argument against it.

Contradiction

- La Salle: suggesting archaeologists are not “motivated by personal, professional, and economic factors”
- No evidence is provided to support this; on the contrary, Muckle suggests archaeologists will not “jeopardize their careers” to assist Indigenous peoples.

Counterargument

- Hutchings: suggesting that Indigenous peoples have benefited from development
- This does not negate the impact of development on heritage sites or archaeology’s role in enabling this; this is therefore counterargument aimed at a different issue.

These transactions convey a deep discomfort with archaeology’s role in alienating lands and resources, historically and today. At this national conference, there were only a few sessions that dealt with CRM; most were “academic.” As such, 97 % of what archaeology is about in this province was absent, and archaeology was represented instead by the 3 %. That this 3 % is largely uninvolved and seemingly uninterested in commercial archaeology is significant.

Disentangling the Responses

Conventional people are roused to fury by departure from convention, largely because they regard such departure as a criticism of themselves. Russell (1930)

We would do well to remember that heritage preservation and the presentation of the past are processes that erase the past just as surely as warfare, looting, or development do. Arnold (2014)

Our three exchanges represent typical modes of engagement between archaeologists: writing a journal article, sending an email, and presenting at a conference. The subject matter in each exchange was similar and the commonalities in responses indicate a pattern:

1. People feel that commercial, contract, compliance or CRM archaeologists are being attacked, judged as unethical, profit-motivated, and “less than” their academic counterparts.
 - This produces a surge of anger that drives immediate “gut” responses to the critique.
2. People suggest that capitalism is inevitable: we cannot change it and we should not judge it—indeed, we should ignore “the money” and talk about how to “work better” within it and be “professional.”
 - This situates capitalism as outside of the archaeologists’ control and rationalizes the practice of CRM.
3. People argue that commercial archaeology is actually beneficial, both for archaeology and science, and for Indigenous peoples who are profiting from it and, in many ways, are driving the industry.
 - This justifies CRM as an ethically responsible practice.

These responses are defensive: they protect archaeologists and their practice by pointing the finger elsewhere to rationalize and justify their collusion in what is charged as harmful. Central to these responses is the personalization of the critique (Hutchings and La Salle 2013, p. 2).

Such reactions have been discussed in terms of cultural cognition, referring to “the tendency of individuals to form risk perceptions that are congenial values” (Kahan et al. 2011). To summarize, people tend to adopt beliefs common to their group (or profession). Individual well-being is tied into group membership through which status and self-esteem are generated. Challenges to group beliefs therefore undermine individual members’ well-being and threaten personal loss. In self-defense, people agree with arguments that reinforce their beliefs and dismiss those that contradict them as having a “negative tone,” particularly if the latter originate from outside of the group.

This dynamic is illustrated in the nature of responses to critiques of archaeology under capitalism. By and large, archaeologists are silent when it comes to the subject of capitalism. This silence may be viewed as a form of forgetting or “amnesia”—both by CRM practitioners and by academic archaeologists—of elements of the discipline deemed unfavourable. In this dynamic, observations (re)affirming archaeology’s ideals of saving or protecting the past reinforce group beliefs and are thus accepted without hesitation. Critiques of money and power are not.

The (re)production of this culture is visible in how people articulate the structure (e.g., as inevitable and unchangeable) and their roles within it (e.g., as trying to do the best they can). While people seem to feel they do not have control to make change, the relationship between structures and agents is recursive and dialectical. To understand how this dynamic unfolds in society more broadly, the remainder of this paper situates archaeology within its larger social, political, and economic contexts.

Archaeology as Disaster Capitalism

The granting of permission to build factories or other structures at places where [Indigenous heritage] sites are located... should be made contingent on the provision by the interested parties of funds for the investigation of such sites before construction commences. We cannot prevent urban expansion and industrial development, but by intelligent legislation they could be turned from a bane to a boon to archaeology. Borden (1950)

I call these orchestrated raids on the public sphere in the wake of catastrophic events, combined with the treatment of disasters as exciting market opportunities, “disaster capitalism.” Klein (2007)

Klein (2007) coined the term disaster capitalism to refer to “making money out of misery.” The concept is the centerpiece of her influential book *Shock Doctrine: The Rise of Disaster Capitalism* examining “corporatist states” and their “capitalist disasters.” Klein’s take on neoliberalism maps directly onto contemporary archaeology, demonstrated in the notion of economic development as a “boon” to the profession, as per Charles Borden’s (1950) comments above.

Borden, recognized as the “father” of British Columbia archaeology, is a historical nexus in Canadian archaeology’s origin story (Carlson 1979; Matson and Coupland 1995) or “invention” (Hobsbawm 1992). Historian Robert West (1995, p. ii) suggests “[p]rofessional archaeologists firmly control the prehistory of British Columbia” due to Borden’s post-war efforts to professionalize archaeology:

In the context of archaeological site destruction, during the 1950s, Borden was able to pull unrelated members of the B.C. populous to his cause, including provincial officials... Amateur archaeologists and Aboriginal people lacked the

means to amass the powerful alliances that Borden did, and therefore amateurs and Natives were unable to offer a persuasive alternative to Borden's authority.

Therefore, non-archaeologists must “put their faith” in the experts “and assume that the knowledge they produce is truthful and valid” (West 1995, p. ii). Archaeology's professionalization and privatization is thus of critical importance, especially to Indigenous peoples, because of its relationship to development and its role in regulating access to resources (Bodley 2008; Mander and Tauli-Corpuz 2006).

The idea of archaeologists profiting from the crisis of modernity (industrialization, corporatization, [sub]urbanization, globalization, neoliberalization, etc.) extends far beyond mid-twentieth-century British Columbia. Today, this sensibility is evident in the notion that “global warming is proving something of a boon for archaeology” (Doyle 2013)—“It's worrying that glaciers are melting but it's exciting for us archaeologists... This is only the start.”

Another example of disaster capitalism in archaeology is in “collaboration with industry” (Flemming 2004). Problematically, a prerequisite to such relationships is the near certainty that archaeologists must ultimately abandon and/or ignore the pronounced ethical problems that attend such unions (e.g., Flatman 2007, 2012). According to Joseph Schuldenrein (2013, n.p.), pressures to “collaborate” (i.e., corporatize) are exacerbated by larger crises of funding:

However, this decline is almost inversely proportional to the expanded role of applied archaeology and the concomitant acceleration of private sector influence... The largest budgets and advanced research technologies in today's archaeology are furnished by pipeline construction. Collaborative efforts between oil and gas engineers and Cultural Resource Management (CRM) professionals has resulted in quantum leaps in the discovery and understanding of the archaeological record.

Schuldenrein describes increasing privatization, suggesting oil and gas extraction—the ultimate cause of the melting glaciers discussed above—has been a boon to the profession, resulting in leaps forward in the science of the past.

Today, archaeology is an industry. Reported by the American Cultural Resources Association (ACRA), there were approximately 1300 CRM firms in the United States in 2012, employing about 10,000 people and generating over \$1 billion in revenue (ACRA 2013, p. 2). In British Columbia, the income range for CRM archaeologists of CAN \$25–40 per hour is between 2.5 and 4 times the current provincial minimum wage of \$10.25 per hour. Academic archaeology professors in the province average CAN \$110,000 to \$115,000 per annum, which is roughly four times what the median income is for most Canadians (\$27,097) and almost six times the median income for Aboriginal people (\$18,962) (La Salle 2014). Thus, an enormous income disparity remains between archaeologists, both CRM and academic, and the average population, as well as the Indigenous communities whose heritage is slowly being dismantled.

Archaeology is, indeed, big business, reliant on resource extraction and commercial and residential development for its livelihood, resulting in the destruction of heritage

landscapes, both natural and cultural, locally and globally. Archaeology may thus be considered a form of disaster capitalism, an industry created by and serving the neoliberal state.

Archaeology as Neoliberal Statecraft

Nation states, or partisans thereof, control and allocate symbolic resources as one means of legitimizing power and authority, and in pursuit of their perceived nationalistic goals and ideologies. Fowler (1987)

Today, most CRM investigations are carried out by private businesses, both for private industry and for Federal, state, and local governments, so that these organizations can efficiently meet their legal obligations under the National Historic Preservation Act and related laws and regulations. ACRA (2013)

It is well established that archaeology is a form of statecraft (Smith 2004; Trigger 1989), and archaeology's capitalist foundations have been queried (Hamilakis and Duke 2007; Shanks and Tilley 1987). Less well understood, however, are archaeology's ties to neoliberalism. We posit that because neoliberalism is the key to understanding disaster capitalism, it is also the key to understanding archaeology.

Rooted in capitalism and laissez faire principles, neoliberalism refers to a new political, economic, and social arrangement emphasizing market relations, minimal states, and individual responsibility (Springer 2010, p. 1025). Understood as an ideological hegemonic project, neoliberalism maintains that "elite groups, organized around transnational class-based alliances, have the capacity to project and circulate a coherent program of interpretations of the world on to others" (Springer 2010, p. 1032). The views of geographer David Harvey, highly regarded for his work on neoliberalism, are summarized by Simon Springer (2010, p. 1032):

Harvey's primary contention is that the foremost achievement of neoliberalism has been the redistribution of wealth to elites, rather than the actual generation of new wealth. In other words, neoliberalism represents the continuation of what Marx (1867[1976]) regarded as "primitive accumulation," which Harvey (2003, p. 145) has renamed "accumulation by dispossession" to signify its ongoing relevance under contemporary capitalism in the form of: the commodification and privatization of land and the forceful expulsion of peasant populations; the conversion of various forms of property rights (common, collective, state, etc.) into exclusive property rights; the suppression of rights to the commons; commodification of labour power and the suppression of alternative (Indigenous) forms of production and consumption; [and] colonial, neocolonial, and imperial processes of appropriation of assets (including natural resources).

In addition to class power, Springer emphasizes bureaucratic formation and its political formation. The former represents neoliberalism-as-policy, the latter neoliberalism-as-governmentality. Both are central elements of our new model of archaeology, discussed below.

To understand archaeology's relationship with the state, capitalism, and the neoliberal state, we offer a new model of archaeology (Fig. 3). In a sense, the model is archaeology "disentangled," representing the convergence of Benedict Anderson's (2006) "mechanisms of state control" and Laurajane Smith's (2004, pp. 11–12) vision of CRM as governing Indigenous cultural identity.

Anderson (2006, pp. 163–164) describes the mechanisms of state control as "the census, the map, and the museum; together, they profoundly shape how colonial states imagine their dominion—the nature of the people it rules, the geography of its domain, and the legitimacy of its ancestry." These three features essential to state authority may also be imagined as controlling the identity, places, and memory of a people—the elements that comprise heritage.

Together, they produce a "totalizing classificatory grid, which [can] be applied with endless flexibility to anything under the state's real or contemplated control: people, regions, religions, languages, products, monuments, and so forth." The effect of the grid is "always to be able to say of anything that it [is] this, not that; it belong[s] here, not there" (Anderson 2006, p. 184).

A prominent and powerful demonstration of the total classificatory grid in Canadian archaeology is the "Borden Grid" (Fig. 4). Foremost, this is due to its cartographic foundation—it is the "map" in Anderson's "census, map, museum." As Kathryn Sampeck (2014) suggests, colonists gain control of a region through mapping, which is "[t]he ultimate tool for implementing state hegemony," as it lets officials "dictate an authoritative perception of the landscape."

The government-funded educational website Artifacts B.C. (n.d.) describes the origin and meaning of the Grid, or "Borden System," using the Indigenous village site of Kosapsom, Vancouver Island, as an example:

In Canada, all archaeological sites are coded by what is known as the "Borden System." It assigns each location a sequence of 4 letters (DeRu) and a number (4)

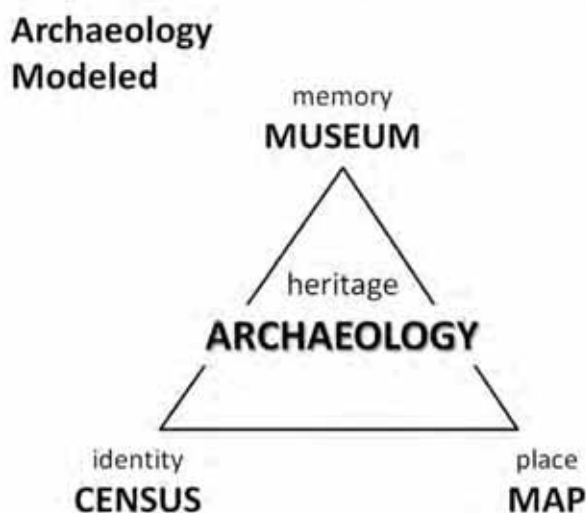


Fig. 3 A new view of archaeology; the convergence of Benedict Anderson's "mechanisms of state control" and Laurajane Smith's vision of CRM as governing Indigenous cultural identity

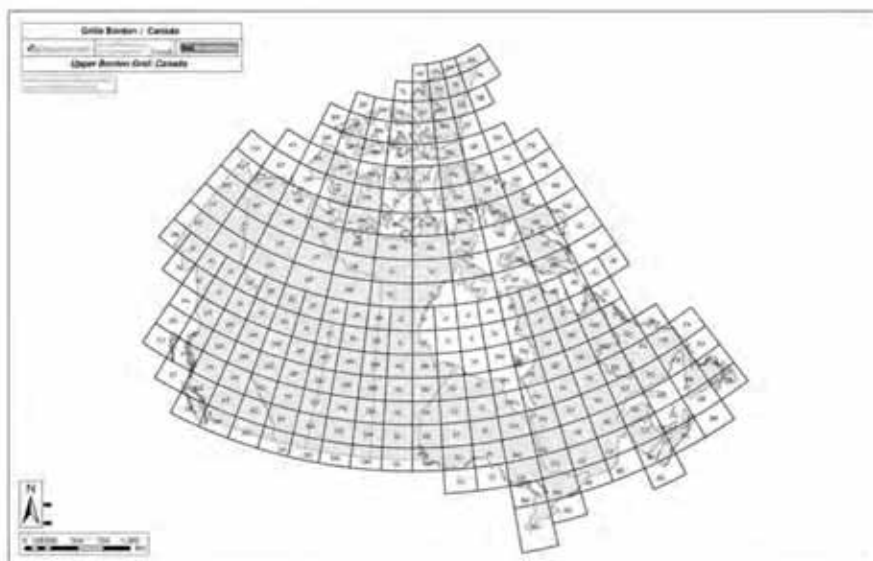


Fig. 4 The Borden Grid (*Grille Borden*), designed by Charles E. Borden in the early 1950s and adopted nationally soon thereafter, exemplifies the total classificatory grid. To wit, it is colonialism in action, (after Government of Canada 2007)

relating to a fixed map code. Borden numbers were invented by Charles E. Borden at the University of British Columbia in 1954. Canada was divided into a grid of main map units of 2° (degrees) latitude (high) by 4° longitude (wide). Latitudinal co-ordinates are assigned capital letters from A through U from south to north and longitude is designated by capital letters A through V from east to west. Each $2^{\circ} \times 4^{\circ}$ main unit (192×300 km) is further sub-divided into 10 min ($'$) sub-units designated by lower case letters from south to north (latitude) and east to west (longitude). For example, in DeRu4, the first two letters indicate the site is in one of the 16 km wide grid squares in the latitudinal 'D' square, and the last 2 letters likewise show the grid position on the longitude. The number '4' after the four letters means it was the fourth site found within a 16×16 km unit.

In this (convoluted) way, Indigenous cultural landscapes (Kosapsom) are scientized (DeRu-4), transformed into generic, state-registered archaeological "sites" and "resources," and thereby made market-ready. The Borden System—and others around the world (in the US, the Smithsonian Trinomial)—operates through the process of renaming. This is the main technique the state uses to colonize Indigenous heritage landscapes, and archaeology is—*thus archaeologists are*—directly implicated in this process.

Lawrence Berg (2011, pp. 13–14) discusses naming as a means to "symbolically and materially solidify current (and historical) processes of capitalist accumulation by dispossession." Specifically, "*banal and uncontested* forms of naming help to hide socio-spatial relations of dispossession." In light of the "dispossession of Aboriginal peoples and their continued marginalization through 'ongoing colonialism,'" Berg

provides an important vantage from which to consider the “violence” of archaeology, discussed below.

Dispossession and its byproduct, dislocation, are central to the second component of our model of archaeology. Laurajane Smith’s (2004, p. 11) critique of CRM suggests the practice arose from the need “to help govern a range of social problems,” especially those posed by Indigenous peoples in colonial contexts like Australia and Canada. As Smith (2004, p. 11) describes,

The whole process of CRM, which emphasizes the technical application of knowledge and expertise, works effectively to render wider political debates about the legitimacy of cultural and social claims on the past as non-political... This then renders “heritage,” and the claims made about it, more readily “governable.” The governance of heritage facilitates the de-politicization of Indigenous claims about cultural identity. This has significant consequences for Indigenous people.

Archaeology thus operates as a technology of government, producing and mobilizing knowledge in support of state interests, economic and otherwise. This idea is well-established; as Don Fowler (1987, p. 241), Society for American Archaeology President from 1988 to 1991, articulated decades ago, “interpretations, or uses, of the past are seldom value neutral”:

In various nation states at various times, some archaeologists have analyzed and interpreted the past to fit the ideological requirements of those states. That is one end of the spectrum. The other is the implicit and therefore unquestioned acceptance of ideological tenets and values from within the archaeologist’s culture and how they influence the archaeologist’s use of the past.

Historically, the concern was about how academic archaeologists’ interpretations of the past work “in service of the state.” What Fowler and others (e.g., Trigger 1989) do not address is archaeology in the form of compliance or commercial archaeology. This oversight is critical because academic archaeology (theory) and compliance archaeology (practice) are two halves of a whole, philosophically and institutionally. As such, academic archaeologists cannot disassociate themselves from CRM.

Today, resource management scholars see bureaucratic institutions as containing the “seeds of failure” (Acheson 2006, p. 124; see also King 2009). Sociologist Sylvia Hale (1990, pp. 518–519) describes a major design flaw:

The loyalty of officials lies not with the general public or the electorate, but with the bureaucracy itself. Their vocation is to serve their official duties... Those who work as employees within the bureaucracy are even more rigidly subject to its regulations. They operate as cogs in the machine. The major requirement for their position is unquestioning and strict adherence to written regulations within their narrowly defined areas of jurisdiction. Their individuality has no place within such a system, for it would disrupt the calculated order.

Archaeologists who operate in this system—referred to as “archaeobureaucrats” by Joshua Dent (2012)—“are paid to assess projects, apply for permits, carry out

fieldwork, write technical reports, and in effect ‘manage’ resources” (Lyons et al. 2012, p. 8). Critique of this system is implicitly discouraged simply by virtue of being affiliated with this imagined community, sharing in its beliefs, and deriving from it one’s identity. Indeed, as the responses discussed above demonstrate, archaeobureaucrats *feel* they do not have any control over the system, all the while they are reproducing it every day.

For this reason, archaeology/CRM represents a very powerful thus potentially dangerous form of statecraft, rationalized and justified by the academy, and carried out and reinforced by the industry. As a form of disaster capitalism operating in neoliberal interests, the impact of this project is significant.

Archaeology as Violence

In the later stages of an epic worldwide struggle, the forces of Western economic development are assaulting the remaining Native peoples of the planet, whose presence obstructs their progress. Mander (1991)

Archaeologists have created a thought world which serves to support their own power and privilege, harms the interests of American Indian people, and aids the on-going cultural genocide focused on Native Americans. Custer (2005)

Is there a market price for ethnic cleansing and environmental damage?
Tommasino et. al. (cited by Funari 2001)

Neoliberal rationalism is linked to poverty, inequality, and violence (Springer 2011; see also Giroux 2014). The results of neoliberalism are all around us, observes Henry Giroux, “ranging from ecological devastation and widespread economic impoverishment to the increasing incarceration of large segments of the population marginalized by race and class” (Polychroniou 2013, n.p.). Neoliberalism, what Giroux calls the “latest stage of predatory capitalism,” is a political and economic project that constitutes an ideology, mode of governance, policy, and form of public pedagogy (Polychroniou 2013, n.p.). By recognizing the structural violence of neoliberalism is everywhere, “‘local’ experiences of violence that seemingly occur in isolation from the wider matrix of space are in fact tied to the ‘global,’ which renders violence somewhat ‘everyday’” (Springer 2011, p. 95).

As neoliberal statecraft, archaeology is prone to violence. Within the processes of colonialism and capitalism, archaeology as a technology of government operates to “clear” Indigenous heritage landscapes (Blaser et al. 2004; Smith 2008) and open up their resources to extraction and development. In exchange for access, Indigenous communities are placated with such “cultural crumbs” (Gnecco 2012) as reports, videos, school booklets, or a local museum, and sometimes even the “privilege” to be able to participate in the “management” of one’s own heritage. Archaeologists profit directly from this unfolding disaster—the driving force behind the creation of the profession in the first place—and the loss of natural and cultural heritage is the result (Foster et al. 2010).

Our goal here is to neither “prove” that neoliberalism (nor capitalism) is violent nor that archaeology, as a consequence of being neoliberal statecraft, is inherently violent also. This case has already been made, in a variety of contexts and many times over, locally, nationally, and globally. Rather, our concern is that archaeology—*thus archaeologists*—continues to “forget” this ongoing legacy of violence.

Archaeological violence is manifested on the ground through what Bruce Alexander (2008) calls “dislocation” and Glenn Albrecht (2005) “solastalgia.” Working in a poverty-stricken neighborhood with a high Indigenous population in urban Vancouver, British Columbia, Alexander demonstrates how neoliberal policies dislocate Indigenous individuals from their past and present, often resulting in addiction, homelessness, and violence. Albrecht (2005) uses the term solastalgia to characterize distress caused by dislocation from one’s environment, including pain, loss, and feeling unable to derive solace from the present, resulting in serious physical and mental health problems. This condition is prevalent in Indigenous communities that are strongly connected to “country.” In their study of solastalgia and cultural resource management in colonial Australia, Sutton et al. (2013, pp. 7–8) describe “Indigenous attachment to the environment as an intimate spiritual connection; the impacts of coal mining therefore not only destroy that environment but irrevocably damage people’s connections to country.”

The destruction of Indigenous heritage is directly implicated in not just ecocide, but ethnocide and genocide. However, the problem in identifying solastalgia in the context of heritage destruction is that it is a “slow” process, and thus difficult to see (Nixon 2011a). As Rob Nixon articulates (2011b), slow violence “is neither spectacular nor instantaneous but instead incremental, whose calamitous repercussions are postponed for years or decades or centuries.” Archaeology is slow violence because the loss of heritage landscapes is incremental and rarely newsworthy. As an apparatus of the state, archaeology is entangled in the slow but ongoing process of colonization.

Within archaeology, this violence is viewed as an externality—as something “outside” the institution. It is thus seen as being outside “our control,” and part of the permanent structure within which archaeologists operate. This is what Hutchings (2013) referred to as “siloing,” whereby archaeologists look at problems “in isolation, so we don’t see the whole picture” (Homer-Dixon 2006, p. 17). The role of archaeobureaucrats in reproducing the structure is thus made invisible: it is in the everyday and in the banality of simply doing one’s job (Arendt 1963) that such structure is sedimented and slow violence unfolds.

Conclusion: Archaeology and the Banality of Evil

What is most dangerous in violence is its rationality. Of course violence itself is terrible. But the deepest root of violence and its permanence come out of the form of rationality we use. Foucault (1996)

The sad truth is that most evil is done by people who never make up their minds to be good or evil. Arendt (1978)

To disentangle archaeology is to understand its rationality: an institutional amnesia about its daily practice as commercial, contract, or compliance archaeology. We suggest that archaeology’s energy or inertia as a form of disaster capitalism is derived primarily

(>97 %) from accumulation through dispossession, or neoliberal violence. In Northern America (Canada and US), that violence is directed almost entirely toward Indigenous peoples and their heritage, reflecting an obvious but rarely discussed racial component to compliance archaeology in colonial settings.

Archaeology today is a billion dollar project in Northern America. As such, we propose adopting the term “heritage industry” to highlight the corporate nature and industrial scale of the archaeology/CRM institution. As late modern statecraft, archaeology is disaster capitalism *par excellence*, characterized by specialist managers (archaeobureaucrats) “clearing” Indigenous heritage from the landscape, making way for economic development. This is achieved by first converting cultural heritage landscapes into archaeological sites, then, when development is to occur, converting archaeological sites into shoeboxes and PDF reports.

Indigenous heritage destruction is deemed rational by archaeologists because the acts of violence are shrouded in the sacrosanct thus taken-for-granted veil that is science and scientific neutrality. In this way, the role of academics in the violence of archaeology extends well beyond the fact that they alone discipline professional archaeologists in the skill-set of compliance. In their teaching and in their silence, academic archaeologists legitimize compliance archaeology, in the process validating “authorized” and “official” heritage discourses that emanate from and (re)produce the capitalist ideology of resourceism.

Seeing archaeology as violence has significant implications for the profession. Recently, the World Archaeological Congress (2013) passed the following resolution: “It is unethical for Professional Archaeologists and academic institutions to conduct professional archaeological work and excavations in occupied areas possessed by force.” In colonized or occupied places like British Columbia, this resolution presents a seemingly intractable dilemma for the discipline’s practitioners, academic and consulting alike.

We end with a prediction and a new point of departure. We predict that there will be little to no meaningful challenge to the assertions made here. We certainly do not think that anyone will “refute the central point” that archaeology is neoliberal statecraft and/or disaster capitalism. The reason, in part, is because truly engaging with the problem means “committing explicitly” to the issues at hand. Another reason, wholly related to the first, is that truth-telling is an extraordinarily difficult task, certainly for the individual, and more so for an entire culture. This recognition forms our new baseline, a challenge set out by Ian Angus (2013): “The first step is to tell the truth—about the danger we face, about its causes, and about the measures that must be taken to turn back the threat. In a time of universal deceit, telling the truth is a revolutionary act.”

References

- Acheson, J. M. (2006). Institutional failure in resource management. *Annu Rev Anthropol* 35: 117–134.
- Albrecht, G. (2005). Solastalgia, a new concept in human health and identity. *Philos Act Nat* 3: 41–44.
- Alexander, B. K. (2008). *The globalization of addiction: a study in poverty of the spirit*, Oxford University Press, New York.
- American Cultural Resources Association (ACRA) (2013). The cultural resources management industry: providing critical support for building our nation’s infrastructure through expertise in historic preservation. <<http://acra-crm.org/associations/9221/files/ACRA%20Handout%20FINAL-revis4.pdf>>

- Anderson, B. (2006). *Imagined communities: reflections on the origin and spread of nationalism*, Verso, London.
- Angus I (2013) The myth of “environmental catastrophism. *Mon Rev* 65(4). <<http://monthlyreview.org/2013/09/01/myth-environmental-catastrophism>>
- Arendt, H. (1963). *Eichmann in Jerusalem: a report on the banality of evil*, Penguin, New York.
- Arendt, H. (1978). *The life of the mind*, Harcourt Brace Jovanovich, New York.
- Arnold, B. (2014). Erasure of the Past. In Smith, C. (ed.), *Encyclopedia of global archaeology*, Springer, New York, pp. 519–520.
- Artifacts BC (n.d.) Labels. <<http://bcheritage.ca/artifacts/kosapsom/labels.htm>>
- Berg, L. D. (2011). Banal naming, neoliberalism, and landscapes of dispossession. *ACME Int E J Crit Geogr* 10(1): 13–22.
- Blaser, M., Feit, H. A., and McRae, G. (eds.) (2004). *In the way of development: indigenous peoples, life projects and globalization*, Zed Books-International Development Research Center, London.
- Bodley, J. H. (2008). *Victims of Progress*, AltaMira, Lanham.
- Borden, C. E. (1950). *Letter to Dr. Harry B. Hawthorn, Nov. 10, 1950, Royal British Columbia Museum. Victoria, B.C. Copy sent to Wilson Duf*, British Columbia Provincial Museum, Victoria.
- Carlson, R. L. (1979). C. E. Borden’s archaeological legacy. *BC Stud* 42: 3–12.
- Custer, J. F. (2005). Ethics and the hyperreality of the archaeological thought world. *North Am Archaeol* 26(1): 3–27.
- Dent J (2012) Past tents: temporal themes and patterns of provincial archaeological governance in British Columbia and Ontario. Master’s thesis, University of Western Ontario, London. <<http://ir.lib.uwo.ca/etd/717/>>
- Doyle A (2013) Pre-Viking tunic found by glacier as warming aids archaeology. March 21. <<http://uk.reuters.com/article/2013/03/21/us-climate-archaeology-idUKBRE92K0V320130321>>
- Flatman, J. C. (2007). The origins and ethics of maritime archaeology, part II. *Public Archaeol* 6(3): 163–176.
- Flatman, J. C. (2012). What the walrus and the carpenter did not talk about: maritime archaeology and the near future of energy. In Rockman, M., and Flatman, J. (eds.), *Archaeology in society: its relevance in the modern world*, Springer, New York, pp. 167–192.
- Flemming, N. C. (ed.) (2004). *Submarine prehistoric archaeology of the North Sea: research priorities and collaboration with industry*, English Heritage/Council for British Archaeology, Bootham.
- Foster, J. B., Clark, B., and York, R. (2010). *The ecological rift: capitalism’s war on the earth*, Monthly Review Press, New York.
- Foucault, M. (1996). *Foucault live: collected interviews, 1961–1984*, Semiotext(e), York New.
- Fowler, D. D. (1987). Uses of the past: archaeology in the service of the state. *Am Antiq* 52: 229–248.
- Funari, P. P. A. (2001). Public archaeology from a Latin American perspective. *Public Archaeol* 1(4): 239–243.
- Giroux, H. A. (2014). *The violence of organized forgetting: thinking beyond America’s disimagination machine*, City Lights Publishers, San Francisco.
- Gnecco, C. (2012). Europe and the people without archaeology. In Van der Linde, S. J., van de Dries, M. H., Schlanger, N., and Slappendel, C. G. (eds.), *European archaeology abroad: global settings, comparative perspectives*, Sidestone Press, Leiden, pp. 387–399.
- Gnecco C, Dias AS (2013) 2013 WAC Inter-Congress Announcement, “Disentangling Contract Archaeology.” <<https://www.facebook.com/wacscprofile/posts/436963356389704>>
- Government of Canada (2007) Grille Borden/Borden Grid. <<http://www.historymuseum.ca/cmc/archeo/sites/pdf/bordengrid-canada.pdf>>
- Graham P (2008) How to disagree. <<http://www.paulgraham.com/disagree.html>>
- Hale, S. M. (1990). *Controversies in sociology: a Canadian introduction*, Copp Clark Pitman, Mississauga.
- Hamilakis, Y., and Duke, P. (eds.) (2007). *Archaeology and capitalism: from ethics to politics*, Left Coast Press, Walnut Creek.
- Harvey, D. (2003). *The new imperialism*, Oxford University Press, New York.
- Hobsbawm, E. (1992). Inventing traditions. In Hobsbawm, E., and Ranger, T. (eds.), *The invention of tradition*, Cambridge University Press, Cambridge, pp. 1–14.
- Homer-Dixon, T. (2006). *The upside of down: catastrophe, creativity, and the renewal of civilization*, Vintage Canada, Toronto.
- Hutchings R (2013) Hard times bring hard questions: Is archaeology pro-development? Is it classist? Colonialist? Imperialist? Racist? Paper presented at the Canadian Archaeological Association Conference, Whistler, BC. <<http://ubc.academia.edu/RichardHutchings>>

- Hutchings R, La Salle M (2013) Five thoughts on commercial archaeology. <http://www.academia.edu/3373567/Five_Thoughts_on_Commercial_Archaeology, 28April 2013>
- Hutchings, R., and La Salle, M. (2014). Teaching anti-colonial archaeology. *Archaeologies* 10: 27–69.
- Kahan, D. M., Jenkins-Smith, H., and Braman, D. (2011). Cultural cognition of scientific consensus. *J Risk Res* 14: 147–174.
- King, T. F. (2009). *Our unprotected heritage: whitewashing the destruction of our cultural and natural environment*, Left Coast Press, Walnut Creek.
- Klein, N. (2007). *The shock doctrine: the rise of disaster capitalism*, Henry Holt, New York.
- La Salle, M. (2010). Community collaboration and other good intentions. *Archaeologies* 6: 401–422.
- La Salle, M. (2014). The trouble with “co-”. *Inst Crit Herit Tour Bull* 2014(2).
- La Salle, M., and Hutchings, R. (2012). Commercial archaeology in British Columbia. *Midden* 44(2): 8–16.
- Lyons, N., Cameron, I., Hoffmann, T., and Miller, D. (2012). Many shades of grey: dispelling some myths about the nature and status of CRM in British Columbia, a response to La Salle and Hutchings. *Midden* 44(3/4): 6–8.
- Mander, J. (1991). *In the absence of the sacred: the failure of technology and the survival of the Indian nations*, Sierra Club Books, San Francisco.
- Mander, J., and Tauli-Corpuz, V. (eds.) (2006). *Paradigm wars: indigenous peoples' resistance to globalization*, Sierra Club Books, San Francisco.
- Marx, K. (1867). *Capital volume 1: a critique of political economy*, Vintage Books, New York.
- Matson, R. G., and Coupland, G. (1995). *The prehistory of the northwest coast*, Academic, San Diego.
- McNiven, I. J., and Russell, L. (2005). *Appropriated pasts: indigenous peoples and the colonial culture of archaeology*, AltaMira Press, Lanham.
- Muckle R (2013a). Perceived conflicts in archaeology-for-profit. *Anthropology News*, June. <<http://www.anthropology-news.org/index.php/2013/09/30/perceived-conflicts-in-archaeology-for-profit/>>
- Muckle,R (2013b). Reflecting on collaborative archaeology with Indigenous peoples. *Anthropology News*, May. <<http://www.anthropologynews.org/index.php/>>
- Nixon, R. (2011a). *Slow violence and the environmentalism of the poor*, Harvard University Press, Cambridge.
- Nixon R (2011b) Slow violence: literary and postcolonial studies have ignored the environmentalism that often only the poor can see. *Chron High Edu*. <<http://chronicle.com/article/Slow-Violence/127968/>>
- Olivier, L. (2013). The business of archaeology is the present. In González-Ruibal, A. (ed.), *Reclaiming archaeology: beyond the tropes of modernity*, Routledge, New York, pp. 117–129.
- Polychroniou CJ (2013) Neoliberalism and the politics of higher education: an interview with Henry A. Giroux. *Truthout*. <<http://truth-out.org/news/item/15237-predatory-capitalism-and-the-attack-on-higher-education-an-interview-with-henry-a-giroux>>
- Rocket000 (2008). A triangular graphic representing a “hierarchy of disagreement.” <http://upload.wikimedia.org/wikipedia/commons/a/a7/Graham%27s_Hierarchy_of_Disagreement1.svg>
- Russell, B. (1930). *The conquest of happiness*, George Allen & Unwin, London.
- Sampeck, K. E. (2014). From ancient altepetl to modern municipios: surveying as power in colonial Guatemala. *Int J Hist Archaeol* 18: 175–203.
- Schuldenrein J (2013) The growth and influence of the oil and gas industry on contemporary archaeology. *Voice Am*. <<http://www.voiceamerica.com/episode/67438/the-growth-and-influence-of-the-oil-and-gas-industry-on-contemporary-archaeology>>
- Shanks, M., and Tilley, C. (1987). *Re-constructing Archaeology: theory and practice*, Cambridge University Press, Cambridge.
- Smith, L. (2004). *Archaeological theory and the politics of cultural heritage*, Routledge, London.
- Smith, A. (2008). Landscapes of clearance: archaeological and anthropological perspectives. In Smith, A., and Gazin-Schwartz, A. (eds.), *Landscapes of clearance*, Left Coast Press, Walnut Creek, pp. 13–24.
- Springer, S. (2010). Neoliberalism and geography: expansions, variegations, formations. *Geogr Compass* 4(8): 1025–1038.
- Springer, S. (2011). Violence sits in places? Cultural practice, neoliberal rationalism, and virulent imaginative geographies. *Polit Geogr* 30: 90–98.
- Sutton, M. J., Huntley, J., and Anderson, B. (2013). “All our sites are of high significance”: reflections from recent work in the Hunter Valley: archaeological and Indigenous perspectives. *J Aust Assoc Consult Archaeol* 1: 1–15.
- Trigger, B. (1989). *A history of archaeological thought*, Cambridge University Press, Cambridge.

- West RG (1995). Saving and Naming the Garbage: Charles E. Borden and the Making of B.C. Prehistory. Master's thesis, University of British Columbia, Vancouver.
- World Archaeological Congress (WAC) (2013) *Newsletter*, December. <<http://www.worldarchaeologicalcongress.org/component/content/article/67-headlines/614-wac-december-2013-enewsletter-volume-42>>
- Yellowhorn E (2013) Whither the heritage conservation act: renewal or funeral? Plenary session, 2013 Canadian Archaeological Association Conference, Whistler, BC, May 15–19, 2013. <<http://canadianarchaeology.com/caa/sites/default/files/page/Whistler2013Programme-may-3.pdf>>

Comment Letter 13b Attachment 4

SAVE THE BEST SALT MARSH IN SOUTHERN CALIF STOP THE LOS CERRITOS WETLANDS RESTORATION AND OIL CONSOLIDATION PROJECT

The Los Cerritos Wetlands Restoration and Oil Consolidation Project actually threatens wetlands and expands oil drilling!

It begins with a land swap between the LCWA, the Los Cerritos Wetlands Authority and Beach Oil Mineral Partners (Synergy Oil partner) which ends up:

Drilling new oil and water wells on land acquired in a settlement from Southern California Edison specifically for the purpose of restoring the Los Cerritos Wetlands

Bulldozing channels to connect the ancient healthy salt marsh with ponds and soils contaminated from years of oil operations on the property

Ignoring LCWA's mandate to be stewards of the wetlands and violating the LCWA Wetlands Restoration Plan which states that the hydrology of the ancient living salt marsh will not be altered.

Drilling and operating 120 new wells before removing any of the 52 old oil wells in the wetlands, and allowing 40 years for all old wells and contamination to be removed.

13b-5

Drilling 120 new oil and water wells on either side of the Newport Inglewood earthquake fault and using slant drilling and water injection to extract up to 200 million barrels of oil. Building new pipelines, including a connecting pipeline to transport oil over the fault.

Treating contaminated waste water on site and re-injecting it beneath the wetlands to prevent subsidence. Risks include polluting the wetlands and Alamitos Bay with oil, chemical cleaners (acidization), and waste water from drilling practices and accidents, including spills and pipeline leaks. Injection wells have also caused earthquakes.

Releasing methane gas and other pollutants into the air.

Prioritizing oil company profits over environmental and cultural concerns.

Denying the Tongva, Acjachemen and other tribal peoples their sovereign right to have their sacred sites preserved and the wetlands ecosystem protected.

Contact the LCWA, mstanley@rmc.ca.gov, Suzie Price district3@longbeach.gov (562) 570 6300, and Roberto Uranga district7@longbeach.gov (562) 570 7777 (both are LCWA board members). Demand full disclosure of the risks posed by this project!

Comment Letter 13b Attachment 5

Craig Chalfant, Senior Planner
City of Long Beach Development Services
333 W. Ocean Boulevard, 5th Floor
Long Beach, California 90802

craig.chalfant@longbeach.gov

Dear Mr. Chalfant:

On behalf of Long Beach 350, a local grassroots climate action group and an affiliate of 350.org, I am writing to oppose the Los Cerritos Wetlands Oil Consolidation and Restoration Project upon reading the DEIR. Our group's three main goals are (1) to keep carbon in the ground, (2) help build an equitable carbon-neutral economy, and (3) work with the City to limit emissions exacerbating climate change. Climate change, as you may know, is currently wreaking havoc on our nation's coastlines in the form of "once-in-a-thousand-years" storms. Houston is just beginning to assess the damage caused by Hurricane Harvey, a Category 4 storm that slammed the Texas coastline a week ago, while Puerto Rico and the U.S. Virgin Islands prepare for tomorrow's inevitable destruction of Hurricane Irma, currently classified as a Category 5 storm making its way to Florida.

It shouldn't take such tragedy to understand climate change is real and it is unrelenting. Fossil fuels like gas and oil are primary contributors to greenhouse gas (GHG) emissions, and as stated in Chapter 3: Section 3.6 of the DEIR: "the scientific community agrees that there is a direct link between increased emissions of GHGs and long-term global temperature increases." Long Beach 350 strongly believes the proposed oil consolidation and restoration project will cause unretractable damage to our climate resulting in global harm.

Among the most alarming data found in this DEIR is the estimated net yearly GHG emissions projected for the project. Table 3.6-4 from the DEIR summarizes: "...construction and operation of the proposed project would result in net GHG emissions of approximately 53,642 MTCO₂e/year for the first 20 years, 50,955 MTCO₂e/year for years 20 through 40, and 48,145 MTCO₂e/year for any time after 40 years."

13b-6

This means the project would result in just over 1,000,000 MTCO₂e/yr in the first 20 years, that is, 1 MMT of CO₂ emissions, and another 1 MMT of CO₂ in the next 20 years. That would be the same as ADDING an extra 11,000 gas-burning cars every day on the road each year for 40 years! Any wetlands restoration proposed by this project surely would have little positive impact compared to the negative impacts of these GHG emissions. And the benefits of restoration may not be realized for at least 40 years, as opposed to the huge GHG emissions that would begin from Day One.

Whatever the financial rewards may be for the City of Long Beach or Beach Oil Minerals Partners (BOMP) to propose this irresponsible project, it is clearly not worth the social costs that will be incurred, both locally and globally. **We cannot afford to allow any new fossil fuel projects to be developed if we want to do something about climate change.** Our state of California has a legal responsibility to reduce GHG emissions 80% below 1990 levels by 2050, and this project will instead set us back several decades. Going forward with this project would be a mistake that cannot be corrected. Please do not accept this proposed project.

Thank you,
Alice Stevens, organizer
Long Beach 350
4627 E Cervato St.
Long Beach, CA 90815

13b-6
(cont.)

Responses to Comment Letters 13a and 13b

Response 13a-1

The comment is an email transmittal letter from the Long Beach Area Peace Networks submitting comments as PDF attachments.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Refer to Responses 13a-2 through 13a-53 for responses to each of the aforementioned attachments.

Response 13a-2

Comments 13a-2 through 13a-25 are submitted by the Long Beach Area Peace Network (contact person Anna Christensen). The comment states, “Response to the Los Cerritos Wetlands Restoration and Oil Consolidation Project DEIR and Applicant’s request for any and all additional permits.”

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13a-3

The comment states that the Long Beach Area Peace Network opposes the project and finds the DEIR fatally flawed. The comment opposes the granting of any and all permits for the project. The comment states that the organization opposes projects and city government promotion of projects that pose threats to public safety, to the environment, marginalized populations, and future generations. The comment requests that the concerns outlined in the document titled “Some Facts and Questions About BOMP’s Los Cerritos Wetlands Restoration and Oil Consolidation Project” be addressed.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. The document referenced in the comment was submitted by the commenter, and responses to that document have been prepared and included in this Final EIR.

Response 13a-4

The comment states that the Draft EIR fails to address the negative impacts posed by the project to a number of environmental issues, including air quality, water quality, water ways, public safety (including potential loss of life and property damage posed by seismic activity given the additional adverse impact of high pressure drilling and the treatment and transportation of millions of gallons of toxic fluids), climate change/sea rise, public recreation, tribal cultural sites and activities, historic and archaeological sites and quality of life for residents and property values.

The comment expresses the opinion of the commenter and does not raise a specific or substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, refer to the Draft EIR, specifically at Sections 3.2, *Air Quality*; 3.8, *Hydrology and Water Quality*; 3.17, *Utilities and Service Systems*; 3.6, *Greenhouse Gas Emissions*, 3.14, *Recreation*; and 3.4, *Cultural Resources*, where each section analyzed each of the impacts that were identified in the comment (with the exception of quality of life for residents and property values which is not a California

Environmental Quality Act [CEQA] issue). Moreover, the comment does not provide specifics with respect to the analysis of each impact that was included in the Draft EIR.

Response 13a-5

The comment indicates a belief that the project violates numerous laws and policies pertaining to the protection of cultural resources and rights of indigenous peoples.

The City conducted cultural resource studies for the project, and the City conducted consultation with appropriate California Native American tribes, in compliance with applicable laws and policies, as described in the Draft EIR.

The comment states that the commenter finds the project would violate CEQA, the California Coastal Act, the Local Coastal Permit of the City of Long Beach, the City's General Plan (including Local Historic Preservation Element, Goal 1: Maintain and support a comprehensive, citywide historic preservation program to identify and protect Long Beach's historic, cultural, and archaeological resources), the mandate of the LCWA, numerous laws affirming the rights of Indigenous Peoples (including non-federally recognized California Indian Tribes), and the Public Trust Doctrine as regards waterways.

The comment expresses the opinion of the commenter and does not raise a specific or substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Moreover, refer to Response 8d-3 and Draft EIR Section 3.4, *Cultural Resources*, concerning the project's impacts to Long Beach's historic, cultural, and archaeological resources.

Response 13a-6

The comment expresses the commenter's belief that the City has failed to conduct adequate public outreach in light of various issues raised by the commenter such as the history of public support for the Los Cerritos Wetlands, the SEASP zoning and the project directly involves the public as landowners who face potential property damage and serious liabilities for any and all of the project's potential negative impacts as stated above.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13a-7

The comment states its belief that the Applicant has engaged in a disinformation campaign and that the applicant's offer to endow the Los Cerritos Wetlands Land Trust as an effort to buy support.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13a-8

The comment states its belief that the public agencies should learn more about the identity and viability of this new corporation in that the project proposes new oil operations before an old well is decommissioned, and the

impact of placing a public resource in foreign hands, and what chemicals will be used to treat the water that is reinjected.

The majority of the comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. The commenter has previously questioned the environmental impacts of reinjecting water. Moreover, the comment's characterization of the project is inaccurate. Refer to Responses 13a-27 through 13a-30, 13a-42, and 13a-53.

Response 13a-9

The comment indicates that the Draft EIR failed to address the relevance of the project area to tribal peoples and the project does not include any commitment to the preservation of tribal cultural resources.

In response, the City notes that, in order to comply with CEQA and appropriate law (including AB 52 and SB 18), the City sent emails and outreach letters to 11 individuals or tribal organizations as identified by the California Native American Heritage Commission, including the two tribes that have requested consultation with the City per AB 52. Contacted individuals represent the following tribal organization: Gabrieleno Band of Mission Indians – Kizh Nation; Soboba band of Luiseño Indians; Gabrieleno/Tongva San Gabriel Band of Mission Indians; Gabrieleno-Tongva Tribe; Ti'At Society/Inter-Tribal Council of Pimu; Gabrieleno Tongva Indians of California Tribal Council; LA City/County Native American Indian Commission; Gabrieleno/Tongva Nation; and Tongva Ancestral Territorial Tribal Nation. Two tribes responded, and one tribe requested consultation, as documented in Draft EIR Section 3.16, *Tribal Cultural Resources*. The consulting tribe indicated that the wetland is considered sensitive for cultural resources. The mitigation measures presented in the Draft EIR, designed to protect significant archaeological and tribal cultural resources, were developed through this consultation. In addition, the locations of the future visitor center interpretive displays will be informed by ongoing tribal consultation.

The comment states that the project goals fail to address the relevance of the project area to tribal peoples and do not include any commitment to the preservation of tribal cultural resources. Project goals do not include the extraction of oil or the operation of the mitigation bank for profit and greenwash an oil company's assault on the Los Cerritos Wetlands.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, refer to Draft EIR Section 3.16, *Tribal Cultural Resources*, which addresses impacts related to tribal cultural resources from the proposed project.

Response 13a-10

The comment states that the LCWA site cannot be legally conveyed to the Applicant for use as an oil drilling site. The LCWA may not collude with private parties and, by doing so, would compromise the mission and independence of LCWA.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, the commenter should note that LCWA's Board will

independently consider the project and make a decision as to whether to enter into the land exchange agreement with the Applicant.

Response 13a-11

The comment disagrees with certain impacts findings in Section 3.4, *Cultural Resources* (Impacts CUL-1, CUL-2, and CUL-4), and Section 3.16, *Tribal Cultural Resources* (Impact TCR-1), as well as cumulative impacts for both Sections 3.4 and 3.16.

The comment does not provide that with which the comment disagrees. Nevertheless, in response to the comment, the City notes that the impact conclusions were developed through cultural resources investigations and consultation with appropriate California Native American tribes, and that with the included mitigation, the impact conclusions are accurate.

Response 13a-12

The comment states that the City of Long Beach and the Project developer have violated the requirements of SB 18 and AB 52.

The comment does not provide specific violations with which SB 18 and AB 52 were violated. Nevertheless, in response to the comment, the City notes that emails and outreach letters requesting input and inviting consultation were sent to the 11 individuals or tribal organizations identified by the California Native American Heritage Commission, including tribes identified for SB 18 consultation and the two tribes that had previously requested consultation with the City per AB 52. Refer to Response 13a-9 for the list of tribes. The results of the outreach efforts are described in Section 3.16, *Tribal Cultural Resources*.

Response 13a-13

The comment notes why they believe the City of Long Beach and Project developer have violated the requirements of SB 18 and AB 52, citing lack of outreach to and input from affected tribal groups and individuals.

Refer to Response 13a-12. Additionally, the City notes that emails and outreach letters requesting input and inviting consultation were sent to the 11 individuals or tribal organizations identified by the California Native American Heritage Commission, including tribes identified for SB 18 consultation and the two tribes that had previously requested consultation with the City per AB 52. Refer to Response 13a-9 for the list of tribes. The results of the outreach efforts are described in Section 3.16, *Tribal Cultural Resources*.

Response 13a-14

The comment outlines requirements of SB 18, stating that the City of Long Beach must develop a working relationship with local tribal entities and are required to involve them at the earliest possible stages of any development projects. The comment further asserts that the City of Long Beach has made no effort to fulfill these requirements and that the public is expected to falsely believe that the local tribes have no interest in preserving the wetlands. Lastly, the comment states that the public is expected to falsely believe that the tribes only want to be involved once construction starts and after it is too late to preserve their cultural resources.

Refer to Response 13a-12. Additionally, the City notes that emails and outreach letters requesting input and inviting consultation were sent to the 11 individuals or tribal organizations identified by the California Native

American Heritage Commission, including tribes identified for SB 18 consultation and the two tribes that had previously requested consultation with the City per AB 52. Refer to Response 13a-9 for the list of tribes. The results of the outreach efforts are described in Section 3.16, *Tribal Cultural Resources*.

Response 13a-15

The comment states that the Draft EIR states that monitoring jobs will go to the tribal group that has most consistently green lighted development. The comment goes on to state that the City of Long Beach and the Draft EIR specifically lacks input from tribal entities, especially from members of the Tongva and Acjachemen who advocate for resource protection, who represent the local Native American community and are prominent figures in the community, who continue to hold ceremony and practice their culture at the Los Cerritos Wetlands, who have worked to preserve the National Register site of Puvunga and burial and archaeological sites in and around the wetlands, and those who have expressed opposition to SEASP rezoning.

The comment indicates that Native American monitoring jobs will go to the tribes that “green light” development, and then provides specific tribal organizations and individuals that did not provide input on the Draft EIR. Refer to Response 13a-12. Additionally, the City responds by reiterating that they sent emails and outreach letters to 11 individuals or tribal organizations as identified by the California Native American Heritage Commission, as required by state law. These outreach efforts included a number of the individuals listed by the comment. Refer to Response 13a-9 for the list of tribes who were contacted. As described in Section 3.16, *Tribal Cultural Resources*, two tribes responded, one of which entered into consultation with the City. Moreover, the City cannot control which tribes respond to outreach and request consultation, and nor can they require other tribal individuals and organization to respond to the outreach efforts.

Response 13a-16

The comment states that the Project Applicant has concluded that the Project will have no significant impact on Cultural Tribal/Archeological Resources, despite the assertion that the Los Cerritos Wetlands are eligible for Sacred Site and Traditional Tribal Cultural Landscape status. The comment also goes on to state that the Draft EIR fails to adequately describe the history and culture of local tribal peoples.

Refer to Response 13a-12. Additionally, these comments pertain to information, some of which could be considered sensitive and confidential, that does not appear in the Draft EIR, and presumably should have been acquired through consultation under AB 52 and SB 18. In response, the City reiterates that the City sent emails and outreach letters to the 11 individuals or tribal organizations identified by the California Native American Heritage Commission, as required by state law. Refer to Response 13a-9 for the list of tribes. As described in Section 3.16, *Tribal Cultural Resources*, two tribes responded, one of which entered into consultation with the City. The information contained in the Draft EIR reflects the results of the consultation.

Response 13a-17

The comment states that the Draft EIR fails to acknowledge and describe how the contemporary local tribal peoples (e.g., Tongva and Acjachemen) view and interact with the Los Cerritos Wetlands and nearby ceremonial sites.

Refer to Response 13a-16.

Response 13a-18

The comment states that the Draft EIR fails to acknowledge the impacts of ecosystem disruption on the Los Cerritos Wetlands, and how that disruption relates to Tribal world views of living beings being interconnected.

Refer to Response 13a-16.

Response 13a-19

The comment states that the Draft EIR lacks discussion of the spiritual, physical, and historic connections of the Los Cerritos Wetlands to Puvunga, which is a major ceremonial center and a National Register site, and to the village of Motuucheyngna, where multiple burials have been unearthed.

Refer to Response 13a-16.

Response 13a-20

The comment states that the Draft EIR lacks any information about or contribution from representatives of tribal organizations that have a history of protecting and preserving the Los Cerritos Wetlands and other significant Tribal sites.

Refer to Response 13a-16.

Response 13a-21

The comment states that the Draft EIR fails to acknowledge the extent to which the evidence and culture of Tribes of coastal Southern California have been erased by development and also fails to acknowledge that there are no mitigation measures that do not contribute to this pattern.

Refer to Response 13a-16.

Response 13a-22

The comment states that the Draft EIR assumes the position that any potential negative impacts of the project can be mitigated and fails to consider the only option that can reasonably be expected to avoid damage to cultural and biological resources, which would be a no project alternative.

Refer to Response 13a-16.

Response 13a-23

The comment references Impact CUL-4 and how the impact states that the Project would not disturb any human remains. The comment goes on to say that Mitigation Measure CUL-6 outlines that disturbed remains would be handled by the Kizh Nation, under the guidance of AB 52. The comment finally states that the treatment and final disposition of cultural resource incorrectly assumes that the Project area as a whole holds no spiritual value to tribal peoples.

Refer to Draft EIR Section 3.16, *Tribal Cultural Resources*. Specifically, refer to p. 3.16-6, which provides that 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, project impacts to tribal cultural resources as a result of construction would be less than significant with mitigation.

Response 13a-24

The comment states that the Draft EIR assumes that agreements regarding tribal cultural properties can be entered into with a single tribal entity. According to the comment, these agreements including the Monitoring Agreement, the Treatment Plan, and a qualified archaeologist. The comment further states that these protocols are nothing more than the institutionalized continuation of colonialism and the conquest of indigenous lands and peoples, and that Tribal peoples have the legal right to be equal partners in decisions regarding the environment and tribal cultural resources. The comment finally states that property owners, developers, and governmental agencies cannot afford to ignore the challenges of unchecked development, and that the legitimate concerns and viable solutions put forward by Tribal entities cannot be dismissed.

Refer to Response 13a-24. The proposed project includes Mitigation Measures CUL-5 through CUL-7, which includes retention of qualified archaeologist and worker training, Native American monitoring, and in the event of the unanticipated discovery of archaeological or other cultural resources and archaeological resource discovery and treatment.

Response 13a-25

The comment states that the Long Beach Area Peace Network concurs and supports comments in opposition to the Draft EIR by: Ann Cantrell, Long Beach 350, and the California Cultural Preservation Alliance. The comment also refers to attached materials for additional comments, documents and positions, as well as supporting evidence.

Refer to responses to Comment Letters 8b, 8d, 9a, and 24b in this Final EIR Chapter 9, *Responses to Comments*, for responses to comment letters from Ann Cantrell, Long Beach 350, and the California Cultural Preservation Alliance. The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13a-26

The comment includes the title of the document, “Some Facts and Questions About BOMP’s Los Cerritos Wetlands Restoration and Oil Consolidation Project.” The first paragraph states that public land, acquired in a settlement with Southern California Edison specifically for the purpose of restoring the Los Cerritos Wetlands will be used by Beach Oil Mineral Partners to drill new wells, allowing the extraction of up to 200 million barrels of oil from beneath the wetlands and surrounding areas.

The comment references a settlement with Southern California Edison (SCE) concerning the 5-acre LCWA site. In settlement for a lawsuit involving the SCE San Onofre Generating Station (*Earth Island Institute, Donald May and David Jeffries v. Southern California Edison Company* (U.S. District Court, S.D. Cal. Case No. 90CV1535-B)), SCE made an Offer to Dedicate (OTD), dated May 30, 2001 (subsequently recorded on November 28, 2001), over an approximately 5-acre parcel that it owned at the northeast corner of Studebaker Road and Westminster Avenue, referred to in the Draft EIR as the LCWA site. The purpose of the OTD was to

“dedicate fee title to the Real Property to implement the [Coastal] Conservancy’s resource enhancement program at the Los Cerritos Wetlands.” Pursuant to the OTD, SCE offered to dedicate to the California Coastal Conservancy the 5-acre parcel. If not accepted, the OTD would expire on May 30, 2007. The OTD required the Coastal Conservancy to make a determination as to whether the 5-acre parcel was suitable for the purpose of implementing a resource enhancement program at the Los Cerritos Wetlands. After originally making a determination that the property was not suitable for implementing a resource enhancement program, the Coastal Conservancy reversed this determination in January 2007 and designated the LCWA to accept the OTD. The OTD was accepted by LCWA in 2007 (refer to Draft EIR p. 2-18). The acceptance of the OTD would permit the LCWA to utilize the parcel to implement a resource enhancement program at the Los Cerritos Wetlands.

Response 13a-27

The comment describes the proposed project as including the drilling of 120 new wells, before removing any of its 53 old oil wells in the wetlands. The comment states that after the new oil operations are up and running, the applicant will have up to 40 years to remove old wells, pipelines, storage tanks, and contaminated soil and water.

The comment’s characterization of the project is inaccurate. As explained in Draft EIR Section 2.5, *Project Characteristics*, the proposed project would be implemented using a phased approach. The project commits to removing 50 percent of the 53 existing wells during the first 20 years after the new office building on the Pumpkin Patch site has been constructed and received a certificate of occupancy (approximately 3 years after the project construction commences) (refer to Draft EIR p. 2-41). The project proposes drilling and operating a total of 120 new wells over a period of approximately 11 years (refer to Draft EIR p. 2-24). Within those first 20 years, if an oil well produces less than one full barrel of oil per day for a period of 18 consecutive months, the well would be immediately plugged and abandoned (refer to Draft EIR p. 2-42). The operating wells are not within the area proposed for wetlands restoration. The remaining 50 percent of the existing wells must be removed by the 40th year from the date the certificate of occupancy for the new office building (refer to Draft EIR p. 2-41).

Response 13a-28

The comment states that air would be exposed to pollution from methane gas and other toxins as oil is extracted and that massive amounts of water would be injected under pressure to dislodge and replace oil.

The comment does not accurately describe the project’s use of methane. During the oil extraction process, oil, water, and gas are brought to the surface from the production formation, separated into component parts, and processed. Among the gasses that are separated during the production process are methane, ethane, and propane from the natural gas produced through the oil extraction process. As described in detail on Draft EIR p. 2-62, the natural gas produced during the oil extraction process would be used to power the facility. Therefore, rather than release methane into the atmosphere, the project would burn the methane to produce energy. The project proposes to use the methane on site to power the gas turbines.

As explained in Draft EIR Section 2.5.1.3, Pumpkin Patch Site, p. 2-54, and Section 2.5.1.4, LCWA Site p. 2-63, the Applicant proposes to drill water injection wells to reinject produced water and oil processing water back into the oil production zones. Oil production wells bring up oil, water, and gas from the production formation. Water injection wells inject sufficient quantities of water back in to the production formation to

replace the volume of fluids extracted and restore the existing pressure conditions. The injected water is a mixture of water derived during the oil extraction process, and also water obtained from the source wells. Source wells are wells used to pump salt water from a deep reservoir. Note that water injection wells would be installed on both sides of the Newport-Inglewood Fault to ensure that produced water is returned to oil production zones on both sides of the fault. Repressurizing the oil production zones would prevent subsidence that might trigger movement along the fault. The impact from potential subsidence would be less than significant, as discussed in Impact GEO-6, Draft EIR p. 3.5-7. Additional information describing the injection of produced water is provided in Appendix E7, Water Injection White Paper.

Response 13a-29

The comment states that the project involves directionally drilling 120 new oil, water injection, and water source wells on either side of the Newport-Inglewood Fault and building more pipelines, including one to transport oil over the fault. The comment states that the wetlands are subject to liquefaction, and any sudden stress can cause solid ground to liquefy.

The comment does not raise a specific substantive issue on the content of the Draft EIR. However, the comment may be questioning the extraction of oil from areas near the Newport-Inglewood Fault and placement of the oil pipeline across the Newport-Inglewood Fault. Specifically, the comment text states that 120 wells would be drilled on either side of the Newport-Inglewood Fault and would use “diagonal” drilling, and building a new pipeline to transport oil over the fault. The comment expresses a concern regarding the potential for liquefaction in the wetlands.

As discussed in the Regulatory Framework sections of Section 3.5, *Geology, Seismicity, and Soils*, and Section 3.7, *Hazards and Hazardous Materials*, all aspects of the installation, operation, plugging, and abandonment of oil wells and oil production systems are regulated by DOGGR, with the regulatory requirements summarized in DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources. This includes the use of directional drilling techniques to install the new oil production wells. The comment uses the term “diagonally drilling,” which is assumed to refer to the directional drilled wells. Such wells may or may not have non-vertical sections, depending on where the oil production zone is located. As acknowledged on Draft EIR p. 3.5-34, all four sites that comprise the project site are located in areas that are susceptible to liquefaction. Prior to construction of any structures including the pipeline, the recommendations of geotechnical investigations to address potential geotechnical concerns, such as liquefaction, must be implemented together with compliance with the California Building Code, DOGGR, and local regulations. This includes the oil conveyance pipeline, which has already had a geotechnical investigation with recommendations to address seismically-induced movement (see Draft EIR Appendix E8). Together, compliance with these measures would reduce the impact to less than significant.

Response 13a-30

The comment states that contaminated wastewater would be treated on site and reinjected into the wetlands to prevent subsidence. The comment states that groundwater, wetlands, and Alamitos Bay will be vulnerable to contamination from oil, chemical cleaners, and wastewater due to drilling methods, possible accidents, and earthquakes.

As discussed in the Regulatory Framework sections of Section 3.5, *Geology, Seismicity, and Soils*, and Section 3.7, *Hazards and Hazardous Materials*, all aspects of the installation, operation, plugging, and

abandonment of oil wells and oil production systems are regulated by DOGGR, with the regulatory requirements summarized in DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources. This includes the use of directional drilling techniques to install the new oil production wells. As explained in Impact HAZ-1, construction and operations 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 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 are discussed in Section 3.7.3, and include RCRA, HMBP, the Aboveground Petroleum Storage Act, the California Fire Code, and others. As discussed in Section 3.5, the construction contractors would be required to prepare a 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.

Response 13a-31

The comment states that the project includes bulldozing channels to drain ponds and soils contaminated from years of oil operation into ancient healthy wetlands.

The comment does not raise a substantive issue on the content of the Draft EIR but rather provides an opinion concerning the proposed project restoration activities. Nevertheless, as explained in Section 2.5.1.1, Synergy Oil Field Site, and Section 2.5.1.2, City Property Site, to increase tidal influence in the wetlands restoration area, some soil movement (i.e., grading) would be required to establish a tidal water connection between the current existing wetland areas that are not tidally influenced and the remainder of the area proposed for wetlands restoration. Moreover, the Los Cerritos Wetlands is considered a degraded wetlands system, not a connected, ancient, healthy marsh that will be restored through project implementation. Moreover, as discussed in Section 3.7, *Hazards and Hazardous Materials*, Phase II environmental assessments have been completed and identified 24,200 tons of contaminated soil that would be removed prior to commencing wetlands restoration activities. The comment will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13a-32

The comment states that LCWA's wetlands restoration plan states that the hydrology of the wetlands would not be altered. The comment states that to do so could destroy the fragile ecosystem and that alternative methods of removing contamination are in place.

The comment does not raise a substantive issue on the content of the Draft EIR but rather provides an opinion concerning the proposed project restoration activities. The proposed project has been reviewed by LCWA, and LCWA has been a member of the Interagency Review Team that has overseen development of the proposed wetlands restoration plan that is proposed to be implemented by the project. Refer to Response 13a-31. Moreover, the Los Cerritos Wetlands is considered a degraded wetlands system, not a connected, ancient, healthy marsh that will be restored through project implementation. The comment will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13a-33

The comment states that the wetlands restoration would be funded by the mitigation bank and that investors would earn pollution credits to offset environmentally damaging projects elsewhere.

The comment does not raise a substantive issue on the content of the Draft EIR, but rather provides the observation of the comment regarding the proposed project and the wetlands restoration activities and mitigation bank. The comment will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13a-34

The comment states that the project will destroy sacred Native American sites, erasing their history and ability to maintain their culture.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. In accordance with AB 52 and SB 18, the City has consulted with tribal representatives, and as a result, mitigation measures have been identified to address any potential impacts to cultural resources. Through consultation, it was determined that no sacred sites would be impacted by the proposed project; thus, any sacred sites in the general area surrounding the project would not be impacted by the project. Moreover, refer to Responses 13a-16 and 13a-23.

Response 13a-35

The comment sets out a series of questions allegedly raised by Susan Hough of the U.S. Geological Survey. The first question is how deep would production and wastewater wells be.

The depth will depend on the depth of the production zones, which are unknown at this time. The process of directional drilling would be used to identify oil production zones.

Three additional comments are addressed below.

Response 13a-36

The second question is how close would the wells be to known faults.

Refer to Draft EIR Figure 3.5-2, Newport-Inglewood Fault Zone, which depicts the approximate location of the Newport-Inglewood Canyon Fault and Fault Zone in relationship to the LCWA and Pumpkin Patch sites, where the project proposes to drill new oil wells. As previously noted, the final location and orientation of the wells will depend on the results of the directional drilling.

Response 13a-37

The third question is whether there will be a “stop-light” system to monitor seismicity once operations begin.

It is unclear what the comment is referring to (i.e., stop-light system). It is assumed that the comment is asking about the systems that would shut down the operations in the event of an earthquake that compromised the system. As described in Impact HAZ-1 in Draft EIR Section 3.7, *Hazards and Hazardous Materials*, pp. 3.7-31 and 3.7-32, the oil production system would be equipped with computerized control, monitoring, and communication systems. These systems would be 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) 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. The SCADA system would provide for a high degree of safety in the operation, allow for quick and technically sound responses to abnormal conditions, and simultaneously provide the basis for environmentally sensitive operating decisions. 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 SCADA system would have multiple levels of redundancy for critical operating components and applications, and has been designed to include cybersecurity measures. The building would be provided with an uninterruptible power supply and a diesel emergency generator to provide continuous power in the event of an external power failure. It would also be equipped with gas and fire detection systems and a fire suppression system.

Response 13a-38

The fourth question is whether local seismic monitoring will be done and whether the data will be made available.

As explained in Response 13a-37, the system would be constructed with redundant shutdown systems that would shut down the system in the event of an earthquake that compromised the system. Seismic monitoring is conducted continuously by the U.S. Geological Survey (USGS) and the Southern California Earthquake Center. Their monitoring data is publically available on their websites.

Response 13a-39

Comments 13a-39 through 13a-50 are from a document titled “Why I Oppose Giving Up Don’s Five Acres,” signed by Ann Cantrell. Comment 13a-39 states that Don May of Earth Corps, the former owner of the 5 acres at Studebaker Road and 2nd Street (the LCWA site), states that when SCE conveyed this property to Earth Corps, the court ordered that the property was to be used to further the restoration of the estuary of the San Gabriel River. The comment asks how drilling for oil can achieve this requirement.

The comment does not raise a substantive issue on the content of the Draft EIR as it does not relate to physical impacts to be studied under CEQA. It will be included in the administrative record and will be provided to City decision-makers for consideration. However, in response to the comment, refer to Response 13a-26. The comment’s summary of the litigation and the SCE OTD is inaccurate. Prior to the acceptance of the OTD by LCWA, the 5-acre site located at Studebaker Road and 2nd Street was owned by SCE. Neither Don May nor Earth Corps were the owners of the LCWA site. In settlement of litigation brought by Don May and others against SCE, SCE made an OTD over an approximately 5-acre site. The purpose of the OTD was to “dedicate fee title to the Real Property to implement the [Coastal] Conservancy’s resource enhancement program at the Los Cerritos Wetlands.” The Coastal Conservancy designated LCWA to accept the OTD, and the OTD was accepted by LCWA in 2007 (refer to Draft EIR p. 2-18). The acceptance of the OTD would permit the LCWA to utilize the parcel to implement a resource enhancement program at the Los Cerritos Wetlands. The LCWA has determined that exchanging the LCWA site for the 76.5-acre restored wetlands on the Synergy Oil Field site would further its mission to implement an enhancement program at the Los Cerritos Wetlands.

Response 13a-40

The comment states that the City's Initial Study for the EIR lists numerous potentially significant impacts and lists those impacts.

The City's Initial Study is included in the City's Draft EIR as Appendix A. The purpose of an Initial Study is to identify whether an EIR or a negative declaration must be prepared to analyze the potential impacts of a proposed project (14 California Code of Regulations Section 15365). Based on the Initial Study, the City determined that an EIR should be prepared. All of the impacts identified by the comment have been analyzed in the City's Draft EIR.

Response 13a-41

The comment states that the Final EIR is not expected to be approved until spring 2017 and that attorney Doug Carstens and biologist Rob Hamilton have both argued that the LCWA should wait until the EIR is complete before agreeing to the land swap and until SEASIP has been finalized and zoning changed.

This document appears to have been written before the Draft EIR was prepared, as the Draft EIR was not published for public review until July 2017. Rob Hamilton and Mr. Carstens' law firm (Chatten-Brown & Carstens) have submitted comment letters on the Draft EIR to which responses have been prepared. As set forth on Draft EIR p. 2-74, one of the discretionary actions that the EIR will be used for is LCWA's determination whether it should enter into a land exchange agreement with the Applicant. The City's SEASP has been approved by the City Council. Because the SEASP is not yet in effect, the Draft EIR includes analysis of a proposed change to the land uses under the currently in-effect SEADIP zoning.

Response 13a-42

The comment states that water injection is used to combat subsidence but is also a method used for fracking. The comment expresses the concern that the water injection process uses potable water and expresses concern with contamination of drinking water.

Refer to Response 13a-52. As explained in Draft EIR Section 2.5.1.3, Pumpkin Patch Site, p. 2-54, and Section 2.5.1.4, LCWA Site, p. 2-63, the Applicant would drill water injection wells to reinject produced water and oil processing water back into the oil production zones. Oil production wells bring up oil, water, and gas from the production formation. Water injection wells inject sufficient quantities of water back in to the production formation to replace the volume of fluids extracted and restore the existing pressure conditions. The injected water is a mixture of water derived during the oil extraction process and water obtained from the source wells. Source wells are wells used to pump saltwater from a deep reservoir. Note that water injection wells would be installed on both sides of the Newport-Inglewood Fault to ensure that produced water is returned to oil production zones on both sides of the fault. Repressurizing the oil production zones would prevent subsidence that might trigger movement along the fault. The impact from potential subsidence would be less than significant, as discussed in Impact GEO-6, Draft EIR p. 3.5-7. Additional information describing the injection of produced water is provided in Appendix E7, Water Injection White Paper. The project does not propose fracking, nor are the source wells using potable water that would contaminate the City's drinking water.

Response 13a-43

The comment states that the pipelines under 2nd Street from the Pumpkin Patch site are on an earthquake fault and subject to rupture, which would be disastrous for the wetlands. Drilling activity on the 5-acre property could trigger an earthquake such as the 1933 earthquake.

Refer to Response 13a-52. As explained under Impact GEO-1, Draft EIR p. 3.5-31, the Applicant conducted a study to identify 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 to be accommodated by sliding on the aboveground supports and accommodate relative axial displacement through flexure of bends in the pipeline. In addition, the pipeline would have stress loops, pressure gauges, automatic shutoff devices, alarms, and valves at specific distances, as required by DOGGR, which would shut the pipeline system 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.

Response 13a-44

The comment states that mitigation bank allow developers to do environmental damage in other sensitive areas and results in smaller habitat.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, mitigation banks provide for the comprehensive creation, restoration, and long-term management and protection of greater amounts of habitat in a consolidated location, and overall provides greater habitat for wildlife.

Response 13a-45

The comment states that the owners of the LCW (presumably the Synergy Oil Field site) are planning on only removing the old wells and pipes and planting native plants and calling this restoration. The comment states that the project proponent must be required to remediate and remove the asphalt and toxic drilling muds that were discharged into ponds over the years.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, the comment does not accurately describe the project. The project proposes the restoration of 76.5 acres of wetlands on the northern portion of the Synergy Oil Field site. On the southern portion, the Applicant would continue to operate the existing wells, but would remove the wells in a phased program extending over 40 years (refer to Draft EIR pp. 2-24 and 2-28). Once the pipeline, tanks, and wells are removed over the southern portion of the site, the area would be revegetated with native vegetation. Because oil operations would continue on the southern portion over the 40-year period, it is not possible to implement a wetlands restoration program on the site because the oil operations would be incompatible with restoration that could include increasing the area subject to a hydrologic connection to the Steamshovel Slough. As oil operations are removed from the southern portion of the site, remediation and cleanup of the site as required by DOGGR regulations, among other regulations, will be undertaken. There is no evidence that asphalt or toxic drilling muds were discharged into ponds.

Response 13a-46

The comment states that the project would allow Synergy [Oil and Gas Company] to access a new source of oil. Instead, we should find ways to eliminate reliance on fossil fuels. The comment expresses the opinion that there is better use for the LCWA site than oil production. Climate change and sea level rise are recognized as threats to the area. Oil should be left in the ground.

The comment expresses the opinion of the commenter, and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13a-47

The comment presents a question as to who will be in charge in 40 years when the last oil well is to be removed and the wetlands are ready to be restored.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. The project proposes the restoration of 76.5 acres to wetlands on the northern portion of the Synergy Oil Field site. The restored wetlands are expected to be restored within the first 3 years of project implementation, and the wetland would be conveyed to LCWA, and it would be in charge of the restored wetlands.

Response 13a-48

The comment describes the original plan of the Los Cerritos Wetlands Land Trust and states that the current plan conflicts with this plan and with LCWA's final conceptual restoration plan. The comment expresses the concern that the proposed wetlands restoration would involve the bulldozing of channels to connect ancient healthy wetlands with polluted ponds and soil, and would result in bringing seawater into the salt marsh.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. It should be noted that the proposed wetlands restoration plan has been reviewed by LCWA, and LCWA has been a member of the Interagency Review Team that has overseen development of the proposed wetlands restoration plan that is proposed to be implemented by the project. Additionally, refer to Response 13a-31.

Response 13a-49

The comment states that using the Steamshovel Slough as the basis for a mitigation land bank violates the public trust doctrine.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Nevertheless, in response to the comment, the public trust doctrine originates in Roman law and is based upon the concept that certain properties that belong to the people are to be held in a trust by the government. Public waterways are one example of property held in trust by the State for the benefit of the public. Those waters

subject to the public trust doctrine are to be used for the furtherance of commerce, navigation, fisheries, and the protection of the environment (*National Audubon Society v. Superior Court* [1983] 33 Cal.3d 419). The public trust doctrine does not prohibit private ownership of waterways but does require that the use of waterways be consistent with furthering commerce, navigation, fisheries, and the environment. It is not settled that the public trust doctrine applies to the Steamshovel Slough, nor is this response intended to serve as the legal opinion of the City of Long Beach regarding the application of the public trust doctrine to the Steamshovel Slough.

Whether the public trust doctrine applies or not, the project proposes restoration of the Los Cerritos Wetlands including enhancing Steamshovel Slough for the purpose of providing greater environmental protection and habitat benefits. In addition, the project would also provide greater public access through construction of the Studebaker Trail, which would allow the public to access the area in close proximity to the Slough and to be able to enjoy the environmental benefits of the restored wetlands.

Response 13a-50

The comment states that these are just a few of the reasons I [Ann Cantrell] oppose the land swap and urge others to do the same.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13a-51

This is an article titled, “Archaeology as Disaster Capitalism,” by Rich Hutchings and Marina La Salle, published in the *International Journal of Historical Archaeology* 19:699-720 (2015).

The article does not pertain to the project and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13a-52

Title and Paragraph 1

The comment is a flyer titled, “Save the Best Salt Marsh in Southern Calif; Stop the Los Cerritos Wetlands Restoration and Oil Consolidation Project”. The first paragraph of the flyer (in bold text) states that the project threatens wetlands and expands oil drilling.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, as explained on Chapter 2, *Project Description*, the project proposes the restoration of 76.5 acres of land for wetlands on the northern portion of the Synergy Oil Field site. These lands currently consist of a mix of uplands, wetlands, and degraded wetlands. The project includes the establishment of a 76.5-acre wetlands mitigation bank, which results from implementation of a wetlands restoration plan. Currently, Synergy Oil Company maintains and operates 53 wells on the southern portion of the Synergy Oil Field site and 33 acres of the City Property site. The project proposes the creation of two new oil production facilities on two separate areas totaling approximately 10 acres (5 acres of the 7-acre

Pumpkin Patch site and the 5-acre LCWA site), which will house a maximum of 120 wells. The wells would consist of a mix of oil production wells and water injection wells. Although the project proposes an increase in the number of wells, the project would result in the consolidation of oil operations to two much smaller areas, thereby allowing for restoration of the southern portion of the Synergy Oil Field site and the City Property site in the future. Note that the location and condition of the Synergy Oil Field and City Property sites make these two sites conducive to restoration. The Pumpkin Patch and LCWA sites are farther from the Los Cerritos Channel and Steamshovel Slough, which makes those two sites less feasible for conversion to wetland habitat.

Paragraph 2

The comment describes the project as beginning with a land swap between LCWA and Beach Oil Minerals Partners.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, in order to phase out the oil production on the Synergy Oil Field site where the restoration area is proposed to occur, new oil wells must be established on property other than on the Synergy Oil Field site. One of the two sites proposed by the applicant for a future oil production site is the 5-acre site owned by LCWA, which is currently used as lay-down area and storage yard and does not contain any environmental integrity. Moreover, this site is disconnected from the historical Los Cerritos Wetlands complex. In exchange for conveying the 76.5-acre restored wetlands area to LCWA, BOMP will receive the 5-acre site at the corner of Studebaker Road and Westminster Avenue, owned by LCWA.

Paragraph 3

The comment states that the land exchange “ends up drilling new oil and water wells on land acquired in a settlement with Southern California Edison for purpose of restoring the Los Cerritos Wetlands.”

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, in 2001, in settlement for a lawsuit involving the SCE San Onofre Generating Station, SCE recorded an Offer to Dedicate (OTD) over an approximately 5-acre parcel that it owned at the northeast corner of Studebaker Road and Westminster Avenue, referred to in the Draft EIR as the LCWA site. The OTD was accepted by LCWA in 2007, as described on Draft EIR p. 2-18. The acceptance of the OTD would permit the LCWA to utilize the parcel to implement a resource enhancement program at the Los Cerritos Wetlands. Refer to Response 13a-3. Further, the land exchange proposed by the project would further LCWA’s wetlands restoration and protection goals for the historical Los Cerritos Wetlands complex by resulting in the conveyance of 76.5 acres of restored wetlands to LCWA for its long-term management and ownership.

Paragraph 4

The comment states that the project “ends up” bulldozing channels to connect the ancient healthy salt marsh with ponds and soils contaminated from years of oil operation on the property.

The comment does not raise a substantive issue on the content of the Draft EIR, but rather provides an opinion concerning the proposed project restoration activities. It will be included in the administrative record and will

be provided to City decision-makers for consideration. Nevertheless, as explained in Chapter 2, *Project Description*, Section 2.5.1.1, Synergy Oil Field Site, and Section 2.5.1.2, City Property Site, in order to increase tidal influence in the wetlands restoration area, some soil movement, i.e., grading, will be required to establish a tidal water connection between the current existing wetland areas that are not tidally influenced that should have been without development. Additionally, the Los Cerritos Wetlands is considered a degraded wetlands system, not a connected, ancient healthy marsh. Moreover, as discussed in Section 3.7, *Hazards and Hazardous Materials*, Phase II environmental assessments have been completed and identified 24,000 tons of contaminated soil that would be removed prior to commencing wetlands restoration activities. The comment will be included in the administrative record and will be provided to City decision-makers for consideration.

Paragraph 5

The comment states that the proposed project ignores LCWA's mandate to be stewards of the wetlands and violates the LCWA Wetlands Restoration Plan, which states that the ancient salt marsh hydrology will not be altered.

The comment does not raise a substantive issue on the content of the Draft EIR, but rather provides an opinion concerning the proposed project restoration activities. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, refer to Response 13a-2. The LCWA was deeded a 5-acre parcel that was long ago disconnected from the historical wetlands complex that contained no biological value. Through the implementation of the proposed project, the project would ultimately convey the 76.5-acre restored wetlands mitigation bank area to LCWA, and they would continue to serve as stewards of the wetlands. The restoration plan and the types of habitat to be created and restored would ultimately be approved by the Interagency Review Team—a committee composed of State and federal agencies tasked with protection of waterways, wetlands, and sensitive species, such as the California Coastal Commission, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service. In addition, to ensure consistency with the LCWA Wetlands Restoration Plan (referred to by the LCWA as the Conceptual Restoration Plan), the LCWA's biologist and engineering hydrologist have been involved in the development of the wetlands restoration plan for the mitigation bank. It should be noted that the LCWA's Wetlands Restoration Plan includes two alternatives that involve a direct tidal connection with Steamshovel Slough in addition to tidal channel grading throughout the site. This connection would re-establish tidal flows into areas that have been cut off from it for nearly a century and would not adversely alter Steamshovel Slough. No dredging or grading would occur within Steamshovel Slough. There are no components of the restoration proposed in this project that is inconsistent with or in conflict with the objectives of the LCWA Wetlands Restoration Plan.

Paragraph 6

The comment states that the project will drill and operate 120 new wells before removing any of the 52 old wells in the wetlands and allowing 40 years for all old wells and contamination to be removed.

The comment's characterization of the project is inaccurate. As explained in Section 2.5, *Project Characteristic*, the proposed project would be implemented using a phased approach. The project commits to removing 50 percent of the 53 existing wells during the first 20 years after the new office building on the Pumpkin Patch site has been constructed and received a certificate of occupancy (3 years). The project proposes drilling and operating a total of 120 new wells over a period of approximately 11 years (Draft EIR p. 2-24). The project also commits to removing 50 percent of the 53 existing wells during the first 20 years after the new office building on the Pumpkin Patch site has been constructed and received a certificate of

occupancy (Draft EIR p. 2-41) Within those first 20 years, if an oil well produces less than one full barrel of oil per day for a period of 18 consecutive months, the well would be immediately plugged and abandoned (Draft EIR p. 2-42). The operating wells are not within the area proposed for wetlands restoration. The remaining 50 percent of the existing wells must be removed by the 40th year from the date the certificate of occupancy for the new office building (Draft EIR p. 2-41). As discussed above in the response to Paragraph 5, 24,000 tons of contaminated soils would be remediated and/or removed prior to commencement of grading for the wetlands restoration. If there are additional contaminated areas of soil discovered where existing wells are removed, the additional contaminated soils would be remediated as the wells are removed.

Paragraph 7

The comment does not raise a specific substantive issue on the content of the Draft EIR, but may be questioning the extraction of oil from areas near the Newport-Inglewood Fault and placement of the oil pipeline across the Newport-Inglewood Fault. The comment text states that 120 wells would be drilled on either side of the Newport Inglewood earthquake fault and would use slant drilling and water injection to extract up to 200 million barrels of oil, and building a new pipeline to transport oil over the fault. Although the comment does not provide a specific substantive issue on the content of the Draft EIR, the comment may be expressing concerns regarding the proximity to the Newport-Inglewood Fault, depicted on Draft EIR Figure 3.5-2, Newport-Inglewood Fault Zone, p. 3.5-4.

As discussed in the Regulatory Framework subsections of Section 3.5, *Geology, Seismicity, and Soils*, and Section 3.7, *Hazards and Hazardous Materials*, all aspects of the installation, operation, plugging, and abandonment of oil wells and oil production systems is regulated by DOGGR, with the regulatory requirements summarized in DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources.

As explained in Draft EIR Section 2.5.1.3, Pumpkin Patch Site, p. 2-54, and Section 2.5.1.4, LCWA Site, p. 2-63, the Applicant would drill water injection wells to reinject produced water and oil processing water back into the oil production zones. Oil production wells bring up oil, water, and gas from the production formation. Water injection wells inject sufficient quantities of water back in to the production formation to replace the volume of fluids extracted and restore the existing pressure conditions. The injected water is a mixture of water derived during the oil extraction process, and also water obtained from the source wells. Source wells are wells used to pump salt water from a deep reservoir. Note that water injection wells would be installed on both sides of the Newport-Inglewood Fault to ensure that produced water is returned to oil production zones on both sides of the fault. Repressurizing the oil production zones would prevent subsidence that might trigger movement along the fault. The impact from potential subsidence would be less than significant, as discussed in Impact GEO-6, Draft EIR p. 3.5-7. Additional information describing the injection of produced water is provided in EIR Appendix E7, Water Injection White Paper.

As explained in Impact GEO-1, Draft EIR p. 3.5-31, the Applicant conducted a study to identify 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 to be accommodated by sliding on the aboveground supports and accommodate relative axial displacement through flexure of bends in the pipeline. In addition, the pipeline would have stress loops, pressure gauges, automatic shutoff devices, alarms, and valves at specific

distances, as required by DOGGR, which would shut the pipeline system 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.

Paragraph 8

The comment states that the project will treat contaminated wastewater on site and reinject it beneath the wetlands to prevent subsidence, and risks polluting the wetlands and Alamitos Bay with oil, chemical cleaners and wastewater from drilling practices. Injection wells have also caused earthquakes.

As explained above in the response to Paragraph 7, the purpose of returning the produced water (wastewater) to the oil production zones is specifically to prevent subsidence and earthquakes that might be caused by subsidence. Substances such as corrosion inhibitors (to prevent harmful corrosion that can happen when water and metal are in contact), scale inhibitors (to prevent clogging, equipment failure, and contamination), biocides (to prevent the formation of harmful bacteria), and/or oxygen scavengers (to remove dissolved oxygen) may also be added to the produced water prior to injection. These are all commonly used throughout the oil separation and water treatment process.

The project's injection wells are classified as Class II wells by USEPA. As previously noted, the Regulatory Framework subsections of Section 3.5, *Geology, Seismicity, and Soils*, and Section 3.7, *Hazards and Hazardous Materials*, explain that all aspects of the installation, operation, plugging, and abandonment of oil wells and oil production systems, including produced water Class II injection wells, is regulated by DOGGR, with the regulatory requirements summarized in DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources. Class II injection wells are regulated under DOGGR's Underground Injection Control (UIC) program. Operators are required to obtain a permit through DOGGR prior to initiating injection. Injection permits include many conditions, such as approved injection zones, allowable injection pressures, and testing requirements. All Class II wells are monitored by DOGGR engineers to ensure the wells are operated properly and maintain mechanical integrity. Additionally, DOGGR engineers typically inspect most well sites annually. Samples of the injected fluids may be taken at any time to confirm compliance.

As stated on the relevant DOGGR website

(http://www.conservation.ca.gov/dog/general_information/Pages/class_injection_wells.aspx), "Class II injection wells provide a viable and safe method to enhance oil and gas production and dispose of produced fluids and other fluids associated with oil- and gas-production operations. In California, Class II injection wells have an outstanding record for environmental protection. A peer review conducted by a national organization, the Ground Water Protection Council, found the Division has an excellent program that effectively protects underground sources of drinking water."

Further, all wells would be steel cased and cement lined. A well contains multiple intervals of casing concentrically placed within the previous casing run until the target depth is reached. The cemented-in-place steel casing prevents the contamination of fresh water zones. Casing restricts the migration of fluids and serves as a barrier to prevent the transfer of fluids between underground layers. Given local variability in subsurface conditions, the cement utilized is carefully designed and laboratory tested in advance to ensure that all well design and regulatory requirements are met. To ensure adequacy of the seal between the casing and the cement, a cement bond log would be run and the results continuously monitored.

The comment also asserts that injection wells have caused earthquakes. Under certain conditions and circumstances, earthquake frequency has been attributed to injection wells; however, based upon additional research, the causal link is highly dependent upon where in the subsurface water is injected (refer to EIR Appendix E7). For the reasons discussed below, the water injection proposed by the project is not expected to induce seismicity. Seismologists are in general agreement that the disposal of water below the production formation into a layer in hydraulic communication with basement rock presents a potential risk for triggering seismicity. In the central United States, particularly in Oklahoma, induced seismicity has been triggered when water produced during oil extraction is disposed of below the production formation in particular areas where this injection creates a pressure imbalance and an increase in sheer stress resulting in earthquakes. This project would inject water back into the oil production formation (not beneath it); underground pressures would be maintained (neither increased nor decreased). The injection of water is necessary in order to prevent subsidence once oil and its water component have been extracted. The project's water injection practices are not similar to the problematic water disposal techniques utilized in Oklahoma and elsewhere. Also, with few exceptions, California has not historically experienced induced seismicity related to prolonged water injection associated with oil production. Water injection in California oil fields has been a part of oil operations for years, but there has been a strong correlation to earthquakes. Because of the differences between the water disposal practices seen in Oklahoma as compared to the water injection conducted in California oil fields over the past 60-plus years, the proposed project is not likely to induce seismicity.

Paragraph 9

The comment states that the project will release methane gas and other pollutants into the air.

Refer to Response 13a-28. The comment does not accurately describe the project's use of methane. During the oil extraction process, oil, water, and gas are brought to the surface from the production formation, separated into component parts, and processed. Among the gasses that are separated during the production process are methane, ethane, and propane from the natural gas produced through the oil extraction process. As described in detail in Draft EIR Chapter 2, *Project Description*, p. 2-62, the natural gas produced during the oil extraction process would be used to power the facility. Therefore, rather than release methane into the atmosphere, the project would burn the methane to produce energy. The project proposes to use the methane on site to power the gas turbines. In addition, the type of turbines that are proposed to be placed on the site are highly efficient as they include what is known as an exhaust gas recirculation system that further reduces emissions by taking any methane from the exhaust and recirculating it through the system thus greatly reducing, if not virtually eliminating, the release of methane. The turbines including the exhaust gas recirculation system are one of the cleanest gas turbines on the market and would help reduce GHG emissions.

Paragraph 10

The comment states that the project prioritizes oil company profits over environmental and cultural concerns.

The comment expresses the opinion of the commenter, and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, oil operations currently are conducted on the Synergy Oil Field, City Property, and Pumpkin Patch sites. The project would result in the removal of the existing 53 wells from the Synergy Oil Field and City Property sites, and consolidate oil operations on two much smaller (5 acres each) sites. The project would restore 76.5 acres of wetlands and would mitigate for any project impacts to wetlands to ensure no net loss of wetlands and to provide an environmental benefit of

greatly expanding the amount of functioning wetlands in the Los Cerritos Wetlands. Lastly, the project has analyzed potential impacts to cultural resources and has mitigated its impacts to cultural resources, including historical resources, archaeological resources, and tribal cultural resources. The project's wetlands restoration component would result in a beneficial environmental impact with respect to wetlands and habitat creation and would mitigate to the extent feasible all significant environmental impacts.

Paragraph 11

The comment states that the project denies the Tongva, Acjachemen, and other tribal peoples their sovereign right to have their sacred sites preserved and the wetlands ecosystem protected.

The comment expresses the opinion of the commenter, and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Refer to Responses 13a-16 and 13a-23. In accordance with AB 52 and SB 18, the City has consulted with tribal representatives and, as a result, mitigation measures have been identified to address any potential impacts to cultural resources. Through consultation, it was determined that no sacred sites would be impacted by the proposed project; thus, any sacred sites in the general area surrounding the project would not be impacted by the project. Finally, the project proposes the restoration of 76.5 acres of wetlands and would convey those wetlands into public ownership and provide public access opportunities, thus providing protection for use and enjoyment of the restored wetlands by the Native American tribes.

Paragraph 12

The comment identifies certain organizations and individuals to be contacted and demands full disclosure of the risks posed by this project.

The City has prepared a Draft EIR that analyzes and discloses the environmental impacts of the proposed project. The comment regarding contacting LCWA and public officials does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for their consideration.

Response 13a-53

The comment is a flyer for the 18th Annual Pilgrimage.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 13b-1

The commenter submitted multiple attachments and stated her objection to the project, as an individual, for the same reasons stated in the Long Beach Area Peace Networks comment letter.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Refer to responses to Comment Letter 13a for responses to the Long Beach Area Peace Networks comment letter.

Response 13b-2

Refer to Response 13a-2 through Response 13a-25 for responses to this attachment.

Response 13b-3

Refer to Response 13a-26 through Response 13a-38 for responses to this attachment.

Response 13b-4

Refer to Response 13a-51 for the response to this attachment.

Response 13b-5

Refer to Response 13a-52 for responses to this attachment.

Response 13b-6

Refer to Response 9a-1 through Response 9a-5 for responses to this attachment.

9.2.3.7 Belmont Shore Business Association, September 18, 2017

Comment Letter 14

Comment Letter 14



September 2017

Re: Los Cerritos Wetlands Oil Consolidation and Restoration Project

Mr. Craig Chalfant,

The Belmont Shore Business Association is pleased to support the proposed Los Cerritos Wetlands Oil Consolidation and Restoration Project. The project team has presented to our organization twice, and it was well received by our members. We are eager to see the wetlands restored and opened up to the public. Immediate removal of the tank farms and pipelines will drastically improve the aesthetics of the area, allowing for hotels and businesses on the east side of LB to thrive from the increase of tourist to the community. We are glad to see no significant traffic impacts associated with the project and only a slight increase in traffic. Additionally, the tax revenue generated by the project will be a significant boost to the General Fund, which will benefit all of Long Beach.

14-1

Thank you,

A handwritten signature in black ink, which appears to read 'Mike Sheldrake', is positioned above the printed name and title.

Mike Sheldrake
President, BSBA

Belmont Shore Business Association
bsba@belmontshore.org | 562.434.3066 | www.belmontshore.org | 200 Nieto Ave Ste 200B Long Beach, CA 90803

Responses to Comment Letter 14

Response 14-1

The comment expresses support for the proposed project because the wetlands would be restored and open to the public, aesthetics would be improved, and City's tax revenue would receive a boost, with only a slight increase in traffic.

The comment's support is acknowledged; however, the comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.4 Individuals

Comment letters received from individuals and the Lead Agency's responses to those comments are included on the following pages.

9.2.4.1 Larry Goodhue, July 6, 2017

Comment Letter 15

Comment Letter 15

-----Original Message-----

From: notobright [mailto:notobright@yahoo.com]

Sent: Thursday, July 27, 2017 9:56 AM

To: Craig Chalfant

Subject: Re: RE Draft Environmental Impact Report: received this date JULY 26,2017 :MAJOR ERROR IN LABELING

Tis on the color map attracted to your letter. look for words Alamitos Bay...That is NOT Alamitos Bay!!!! THOSE waters are a portion of the DE JURE Long Beach Marine Stadium... the point is raised ONLY..because your document will be memorializedand thus want to avoid specter of years down the path of development..some one new to said process..says look here...this is where Alamitos Bay is..LBG (323) 474 4446

Sent from my iPad

> On Jul 27, 2017, at 8:19 AM, Craig Chalfant <Craig.Chalfant@longbeach.gov> wrote:

>

> Which Figure are you referring to?

>

> -----Original Message-----

> From: notobright [mailto:notobright@yahoo.com]

> Sent: Thursday, July 27, 2017 12:06 AM

> To: Craig Chalfant

> Cc: distret3@longbeach.gov; Amy Bodek

> Subject: RE Draft Environmental Impact Report: received this date JULY

> 26,2017 :MAJOR ERROR IN LABELING

>

> Note where you have Alamitos Bay..is actually the De Jure Long Beach Marine Stadium....with Alamitos Bay..southwesterly point beginning as Public Sidewalk turns the corner @LBYC...with the northern end of Marine Stadium...being out of the picture/ shot.

>

> Larry Goodhue

> 323 474 4446

>

> Sent from my iPad

15-1

Responses to Comment Letter 15

Response 15-1

The comment suggests there is a labeling error in the figures attached to the NOA and that the water portions labeled as Alamitos Bay are actually the De Jure Long Beach Marine Stadium.

According to the Long Beach Department of Parks, Recreation, and Marine, the Alamitos Bay begins at the intersection of Pacific Coast Highway and Second Street, near Belmont Shore and Naples Island and includes Marine Stadium. Therefore, the labeling of Alamitos Bay in the figures attached to the NOA is correct. The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.4.2 Elliot Gonzalez, August 29, 2017

Comment Letter 16

Comment Letter 16

From: Elliot Gonzales [<mailto:cururbanparadise@gmail.com>]
Sent: Tuesday, August 29, 2017 12:41 PM
To: Christopher Koontz <Christopher.Koontz@longbeach.gov>
Subject: Land Swap

I noticed no mention of climate change in the proposed EIR for the land swap. I guess the impact of removing the fossil fuels doesn't need to be included as an environmental impact? [16-1

—
Elliot Gonzales
(562) 313-8746

Responses to Comment Letter 16

Response 16-1

The comment notes that there is no mention of climate change in the Draft EIR for the proposed land swap.

Draft EIR Section 3.6, *Greenhouse Gas Emissions*, evaluates the potential for the proposed project to result in adverse impacts related to GHG emissions, including climate change. The analysis is based on review of available GHG reports, the relevant regulatory ordinances, and a discussion of the methodology and thresholds used to determine whether the proposed project would result in significant impacts. This section analyzes the potential for both project-level and cumulative environmental impacts.

9.2.4.3 Matthew Vo, September 3, 2017

Comment Letter 17

Comment Letter 17

From: Matthew Vo [<mailto:mvo321@gmail.com>]
Sent: Sunday, September 03, 2017 10:56 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Subject: Fwd: Oil Drilling Projects at Los Cerritos Wetlands

----- Forwarded message -----

From: "Matthew Vo" <mvo321@gmail.com>
Date: Sep 3, 2017 6:49 PM
Subject: Oil Drilling Projects at Los Cerritos Wetlands
To: <craig.chalfant@longbeach.gov>
Cc:

Dear Craig,

As a Long Beach resident, I am very concerned about the various lasting environmental impact issues brought about by these oil drilling projects.

I am worried that serious studies have not been adequately carried out in order to better protect the local environment and people. Before any potentially irreversible actions can be brought about by these projects, I hope more safety studies can be shown to assure the constituents that these projects are truly safe long-term.

Sincerely,
Matthew Vo
Long Beach, CA 90803

17-1

Responses to Comment Letter 17

Response 17-1

The comment expresses concern about the environmental impacts brought by drilling projects and does not believe serious studies have not been adequately carried out. The comment expresses the hope that more safety studies are provided to assure constituents that these projects would be truly safe in the long-term.

As discussed in Section 3.5, *Geology, Seismicity, and Soils*, and Section 3.7, *Hazards and Hazardous Materials*, in their Regulatory Framework sections, all aspects of the installation, operation, plugging, and abandonment of oil wells and oil production systems are regulated by DOGGR, with the regulatory requirements summarized in DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources. The regulations provided by DOGGR are the result of decades of experience in regulating the oil industry and include incorporating safe practices in all aspects of oil production. Some examples of how the DOGGR regulations drive the safety of the proposed project are summarized below.

As discussed in Draft EIR Chapter 2, *Project Description*, Section 2.5.1.1, Synergy Oil Field Site, pp. 2-25 through 2-42, and Section 2.5.1.2, City Property Site, pp. 2-42 through 2-49, the existing oil wells would be plugged and abandoned in accordance with DOGGR regulations, resulting in the removal of all currently existing oil wells and associated infrastructure from on the Synergy Oil Field and City Property sites, the properties to be restored as wetland habitat, thus removing the potential of spills in the wetlands.

As explained in Draft EIR Section 3.5, *Geology, Seismicity, and Soils*, p. 3.5-31, under Impact GEO-1, the Applicant conducted a study to identify 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 to be accommodated by sliding on the aboveground supports and accommodate relative axial displacement through flexure of bends in the pipeline. In addition, the pipeline would have stress loops, pressure gauges, automatic shutoff devices, alarms, and valves at specific distances, as required by DOGGR, which would shut the pipeline system 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. The pipeline design study is provided in Appendix E8, Pipeline Design Assessment.

As discussed in Draft EIR Section 2.5.1.3, Pumpkin Patch Site, pp. 2-52 through 2-58, and Section 2.5.1.4, LCWA Site, pp. 2-59 through 2-64, new oil wells would be installed using modern technology in accordance with DOGGR regulations, resulting in safer operations of the oil wells and associated infrastructure. The wells would include blow-out prevention equipment (BOPE), designed to prevent spills with automatic shutoff systems. The wells would be installed in well cellars, designed to contain fluids in the event of a leak. Additional information on drilling and production is provided in Appendix E5, Oil Drilling and Production Overview White Paper.

9.2.4.4 Cindy Crawford, September 4, 2017

Comment Letters 18a and 18b

Comment Letter 18a

Subject: FW: Public Comment Letter, LOS CERRITOS WETLANDS OIL
CONSOLIDATION AND RESTORATION PROJECT

Attachments: LCW-DEIR-Comments.docx; ATT00001.htm

From: Cindy Crawford [<mailto:cec1174@aol.com>]
Sent: Monday, September 04, 2017 4:05 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Subject: Public Comment Letter, LOS CERRITOS WETLANDS OIL CONSOLIDATION AND RESTORATION
PROJECT

Thank you for the opportunity to comment on this DEIR. Please find attached my public comments on the
subject project.

Sincerely,
Cindy Crawford

18a-1

Comment Letter 18b

September 4th, 2017

Subject:

LOS CERRITOS WETLANDS OIL CONSOLIDATION AND
RESTORATION PROJECT
DEIR Comments

Attention: Craig Chalfant

Thank you for this opportunity to comment on the subject project DEIR. I'm commenting as an individual, not as a member of any group or organization.

In general I do support the idea of wetlands restoration. Long Beach is fortunate to have a little piece of what has been called one of the finest examples of salt marsh habitat in Southern California, commonly known as "Steam Shovel Slough" but more appropriately, Los Cerritos Wetlands Marsh. Does any historical evidence exist supporting the "Steam Shovel" story and if not could we change the name to something like Los Cerritos Wetlands Marsh?

Moving forward, we must also protect this small remnant historical salt marsh from what is commonly termed "loving it to death". Reading Chapter "3-14 Recreation" I have many questions. Direct link to 3-14 which I'm referring to is: <http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=6679>

I'd like to point out, Coastal Commission's NOP comment letter dated May 27th, 2016, found in DEIR Appendix A, page 14 (direct link: <http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=6688>) states:

15. Recreation: Please analyze the extent of noise, vibration, traffic and other impacts, if any, on coastal recreation, including use and enjoyment of the proposed visitor's center and trail. Also, please thoroughly examine the impact of the proposed trail on the surrounding wetland areas. It will be important to understand both the recreational benefits from adding a public trail within the proposed wetlands and the potential adverse effects on the biological resources from introducing public access to a sensitive area that is currently not open for public recreation.

Reading 3-14 Recreation, I don't see any actual maps for recreational facilities including trail development plans, interpretive center plans, maps showing where recreational trails and facilities are planned – could we please include more details in "Recreation"? Does the DEIR adequately address Coastal's #15 copied above? Although a trail sounds amazing, I too would like to see an impact analysis of all proposed recreation, could we please include this too?

In Appendix C3 ESHA Technical Memorandum, BOMP's biologists discuss the potential for ESHA status for at least certain areas of the Los Cerritos Wetlands "Steam Shovel Slough" area. The direct link to the section I refer to is: <http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=6703> – could we include maps showing potential ESHA areas in relation to planned "Recreation"? At Bolsa Chica I know they have areas designated as ESHA, and areas with some kind of "Reserve" status and areas that don't have any special status for lack of a better term. At Bolsa Chica I don't see certain recreational activities allowed, such as kayaking. 3-14 states kayaking could be increased. Could we include discussion of the different designations, perhaps a comparison using Bolsa Chica, and impacts of water recreation such as

kayaking and why or why not this is a good idea in a sensitive wetlands ecosystem and such a small salt marsh as ours?

18b-6
(cont.)

Finally, some of the language in 3-14 is confusing, could we clarify please? I see "4 acres of park land on site", "overlook terrace with picnic facilities", "public access from dusk till dawn 7 days a week", "15,000 to 20,000 visitors each year", "Los Cerritos Lagoon" for example.

18b-7

Could we include maps of "terrace picnic facilities" and "4 acres on site park land"? Do we really plan to create a park and picnic area on the most sensitive portion of Los Cerritos Wetlands? If the permitting agencies did not have a problem with it, I would think a few picnic benches at the interpretive center would be reasonable perhaps but not out on the wetlands trails? I would not think "park land" would be a good goal for the project, perhaps they really meant "restoration"? Could we check into this?

18b-8

15,000 to 20,000 visitors each year, is this really expected at this small acreage location and how does this compare to Bolsa Chica's yearly visitation and how did we arrive at these numbers?

18b-9

Perhaps opened "dusk till dawn" and "Los Cerritos Lagoon" are mistakes? Could we correct this in the EIR?

18b-10

I look forward to answers and clarifications in the future. Again thank you for the opportunity to comment.

18b-11

Sincerely,

Cindy Crawford
6821 E Mantova St.
Long Beach CA 90815

Responses to Comment Letters 18a and 18b

Response 18a-1

This comment is an email transmittal letter from Cindy Crawford submitting a comment letter as a PDF attachment on the Draft EIR.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 18b-1

The comment is an introductory statement expressing thanks for the opportunity to comment on the Draft EIR and that the comments are submitted as an individual and not as a member of any group or organization.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 18b-2

The comment states that, in general, the commenter supports the idea of wetlands restoration and asks about the derivation of the name of Steam Shovel Slough and whether it could be changed in the future.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 18b-3

The comment states that the historical salt marsh must be protected from “loving it to death” and that the commenter had questions regarding the Recreation section of the Draft EIR.

The comment presents the opinion of the commenter regarding protection of the “historical salt marsh.” The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. The comment does not present any specific questions regarding the Recreation section to which a response can be provided.

Response 18b-4

The comment cites a comment from the letter submitted by the California Coastal Commission in response to the Notice of Preparation. The comment concerns the potential impacts of the project on recreation and requested the analysis of impacts on coastal recreation, including the visitors center and trail and the impact of the trail and increasing public access on the surrounding wetlands.

As evidenced by the following Project Objectives, the City believes that, when designed properly and executed appropriately, the competing uses of restoration of native saltmarsh habitat and recreational functions can coexist:

- 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 76.52-acre restored coastal wetlands habitat, including habitat for special-status plant and animal species.

- 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.

The project proposes a new Studebaker Trail such that public use of the site will be available to hikers. Although the project proposes bicycle lanes on the adjacent streets, there will be no bikers or kayakers accommodated on the site; however, it should be noted that kayakers have been observed entering Steamshovel Slough from the Los Cerritos Channel. Bicyclists who enter the site from 2nd Street will be required to park their bicycles in dedicated bicycle parking racks located within the parking lot. There will be no bicycle access permitted at the picnic tables or on any part of the trail. Signage will make this restriction clear. With respect to the visitors center, the center and the public access areas adjacent to the visitors center will be designated for use only as determined by the Los Cerritos Wetlands Authority (LCWA). With LCWA as the land manager of the restoration area and operator of the visitors center, a schedule will be established that outlines hours of operation and access to amenities such as the Studebaker Trail to ensure that public access to the restored wetlands does not adversely impact the wetlands. This includes potential use of guided walks on the trail to ensure that adjacent habitat vegetation is not impacted and signage restricting bikes and kayaks in the restored wetland areas and trails. It should be noted that the trail is not located in wetlands. The entire east-west segment of the trail from the parking lot is located entirely on existing earthen access roads. Once the trail turns north parallel to Studebaker Road, it is located entirely on an existing upland fill area. The impacts of constructing and maintaining the Studebaker Trail and a visitors center are addressed in Draft EIR Section 3.14, *Recreation*, p. 3.14-10. In addition, impacts of wetlands restoration and trail construction have been analyzed in other sections of the EIR, including Section 3.2, *Air Quality*; Section 3.11, *Noise*; and Section 3.15, *Transportation and Traffic*. Also refer to Response 10b-7 in the response to the El Dorado Audubon Society letter.

Response 18b-5

The comment states that no maps for recreational facilities were provided such as trail development plans, interpretive center plans, maps showing the recreational trail and facilities. The comment requests analysis of all proposed recreation elements of the project.

The Draft EIR includes a depiction of the visitors center area and the trail head for the Studebaker Trail. Refer to Chapter 2, *Project Description*, Figure 2-18, Visitors Center, p. 2-40. In addition, Draft EIR Section 3.14, *Recreation*, Figure 3.14-1, Existing Bikeways, p. 3.14-4, depicts the location of the existing and proposed bikeways. The comment is correct that detailed depictions of the visitors center were not provided in the Draft EIR. At this time, those detailed plans have not yet been prepared; however, the Draft EIR provides detailed descriptions of the relocation and improvements that will be made to the existing Bixby Office Building to convert it to use as a visitors center in Chapter 2, *Project Description*, p. 2-39, and a detailed description of the Studebaker Trail and overlook terrace area at the northern end of the trail. The impacts of improving the Bixby Office Building and converting it to use as a visitors center are addressed in Draft EIR Section 3.4, *Cultural Resources*, pp. 3.2-18 to 3.4-19. Although Figure 2-18 depicts the visitors center and trail head, it has been revised to more accurately reflect the size and configuration of the picnic table area and is included in Final EIR Chapter 10, *Draft EIR Revisions*. Also refer to Response 10b-7 in the responses to the El Dorado Audubon Society letter.

The comment also requests that the extent of noise, vibration, traffic, and other impacts on coastal recreation, including use and enjoyment of the visitors center and trail, be addressed. The Draft EIR analyzes the impacts

of the proposed project, including its potential to generate noise, vibration, and traffic that could affect the surrounding environment. Project noise, for example, is addressed in Draft EIR Section 3.11, *Noise*, pp. 3.11-15 to 3.11-24. CEQA does not require that the EIR analyze the impact of the existing environment, e.g., noise, on the proposed project, such as the visitors center or Studebaker Trail. See *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369; *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455. The visitors center will be opened after the wetlands restoration activities on the Synergy Oil Field site has been completed. As the existing oil operations are not noise intensive, there are no major noise-generating sources on the Synergy Oil Field site that would create noise or vibration that would significantly affect the enjoyment of the Studebaker Trail and visitors center.

Response 18b-6

The comment request maps showing potential ESHA areas in relation to planned recreation. The comment also notes that at Bolsa Chica kayaking is not allowed whereas the Draft EIR states that kayaking could be increased. The comment requests a discussion of the different land designations, such as “reserve” status and impacts of water recreation.

Although no areas have been formally determined by the California Coastal Commission to be “ESHA” as defined by the Coastal Act, Section 3.5, *Biological Resources*, includes maps depicting various habitat areas that could potentially be considered “ESHA” such as wetlands and habitat areas for the Belding’s savannah sparrow. None of the areas that could potentially be considered “ESHA” are proposed for public access, such as the visitors center, parking lot, or trail would impact ESHA.

With respect to the comment regarding the prohibition of kayaking at Bolsa Chica and the impact of water recreation, there is no intent for the project, nor the future mitigation bank, to establish a kayaking program through Steamshovel Slough. Currently, kayakers who enter the site do so by means of trespassing from the Los Cerritos Channel and gliding over the existing trash boom that spans the entire mouth of Steamshovel Slough. This activity is sporadic and should not be considered an existing recreational amenity. As it is an existing condition, and is not proposed for expansion by the project, the recreational activity is not a component of the project that requires evaluation in the Draft EIR. The public access provided through the visitors center and Studebaker Trail, will provide viewing opportunities to the Steamshovel Slough. The project does not propose any physical barriers to the Steamshovel Slough from the Los Cerritos Channel; however, signage at the mouth of the Slough could be installed if kayaking activity is determined to be disruptive to the restored habitat. Additionally, see Response 10b-10 in the responses to the El Dorado Audubon Society letter.

Moreover, the comment notes that at Bolsa Chica areas are designated as ESHA and areas with some kind of “Reserve” status. Much of the Bolsa Chica lowlands/wetlands area is owned by the State of California and operated by the California Department of Fish and Wildlife as an Ecological Reserve. Ecological Reserves are State-owned and State-managed areas that have been set aside for the protection of wildlife and habitat. Although there are areas at Bolsa Chica that contain habitat that has been designated as “environmentally sensitive habitat areas” or “ESHA” as that term is defined by California Coastal Act Section 30107.5, those areas are located within otherwise protected open space areas. The project proposes the conveyance of the restored 76.5-acre wetlands to the LCWA.

Response 18b-7

The comment request explanation of certain terms used Draft EIR Section 3.14 *Recreation*. The comment requests clarification of various terms.

- “4 acres of park land on site”—Refer to Response 18b-8.
- “overlook terrace with picnic facilities”—Refer to Response 18b-8.
- “public access from dusk till dawn 7 days a week”—This was a typographical error and should read that public access will be provided from “dawn until dusk” 7 days a week and has been revised in Chapter 10, *Draft EIR Revisions*, of this Final EIR. As discussed in greater detail in Response 18b-8, the public use areas are not intended to function as a park, and with LCWA as land manager of the restored wetlands area and operator of the visitors center, hour of operation and various land management measures will be implemented to protect the habitat.
- “15,000 to 20,000 visitors each year”—This represents an estimate of the number of visitors that could—not will—visit the site; it is an estimate and projection for purposes of environmental analysis.
- “Los Cerritos Lagoon”—This is a reference to the Los Cerritos Wetlands and Steamshovel Slough. This term is specifically used in the City’s 1989 Land Use Element and Local Coastal Program. It is only used in the Draft EIR when describing specific information and policies contained in those documents.

Response 18b-8

The comment requests a map of the “terrace picnic facilities” and “4 acres onsite park land” and asks whether the project plans to create a park and picnic area on the most sensitive portion of the Los Cerritos Wetlands. The commenter does not think “park land” would be a good goal for the project and perhaps suggests restoration be considered instead.

With respect to the “terrace picnic facilities” and “4 acres onsite parkland” these project components are illustrated in Draft EIR Figure 2-18, Visitors Center, p. 2-40. Also, see Response 10b-6 and 10b-7 in the responses to the El Dorado Audubon Society letter. In response to the comment, Draft EIR Figure 2-18 has been revised to show a more accurate depiction of this proposed project component, and the landscaping palette revised to focus on native vegetation in Chapter 10, *Draft EIR Revisions*, of this Final EIR. Approximately six to eight picnic tables are proposed in a small grouping near the initial segment of the Studebaker Trail from the parking lot; however, this area will be designated for use only as determined by the LCWA. The public use areas are not intended to function as a park. With LCWA as the land manager of the restoration area and operator of the visitors center, a schedule will be established that outlines hours of operation and access to amenities such as the Studebaker Trail and picnic tables. Additionally, Biological Technical Report p. 2 states the project would implement public access improvements on 1.28 acres. This would comprise the parking lot, visitors center, and trail from the parking lot to the restoration area. The acreage figure on Figure 2-18 has been corrected to reflect 1.28 acres described in the Biological Technical Report. The revised figure is included in in Chapter 10, *Draft EIR Revisions*, of this Final EIR.

Response 18b-9

The comment asks if the number of expected visitors is accurate and how does it compare to Bolsa Chica’s annual visitor rate.

Access to the visitors center and Studebaker Trail on the Synergy Oil Field site is not expected to be comparable to the visitor rate at the Bolsa Chica wetlands. First, the Bolsa Chica wetlands is a 1,449-acre property with approximately 5 miles of trails and two parking lots. It is a much more well-known ecological system than the Los Cerritos wetlands. The applicant projects the number of expected non-group tour visitors to be in the range of 5–10 per day. The higher number of 15,000–20,000 was an estimate that was used to ensure that the vehicle trips and potential impact of visitors would be properly analyzed and accounted for in potential project impacts.

Response 18b-10

The comment asks if the reference to “dusk till dawn” and “Los Cerritos Lagoon” are accurate.

The reference that the site is open from “dusk to dawn” is inaccurate. The time should have been “dawn to dusk” and this is corrected in Final EIR Chapter 10, *Draft EIR Revisions*. In addition, see Response 18b-8. The hours of operation will be ultimately determined by the LCWA, but will not exceed dawn to dusk. As described in Response 18b-7, Los Cerritos Lagoon is a term that was specifically used in the City’s 1989 Land Use Element and Local Coastal Program. It is only used in the Draft EIR when describing specific information and policies contained in those documents.

Response 18b-11

The comment states that she looks forward to answers and clarifications in the future and thanks the City for the opportunity to comment.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.4.5 Jane Vargas, September 4, 2017

Comment Letter 19

Comment Letter 19

-----Original Message-----

From: Jane Vargas [<mailto:juzombi@yahoo.com>]
Sent: Monday, September 04, 2017 10:05 AM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Subject: Cerritos Wetlands

Please do not allow drilling in or near the Cerritos Wetlands.
Jane Vargas
Long Beach, CA

Happy Grandma

I 19-1

Responses to Comment Letter 19

Response 19-1

The comment requests that drilling not be allowed near the Los Cerritos Wetlands.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.4.6 Andrea L. Bell, September 5, 2017

Comment Letter 20

Comment Letter 20

From: Andrea Bell, L.C.S.W. [<mailto:andreab.lcsw@gmail.com>]
Sent: Tuesday, September 05, 2017 4:51 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Subject: Oil drilling in Los Cerritos Wetlands

Greetings,

I have been a Long Beach resident since 1998 and have worked here since 1994. I currently own and operate a small business here. Long Beach is my home, and I intend for this to be permanent.

I am writing to beseech you to NOT permit this oil drilling project to occur.

1. It is NOT acceptable to risk destruction of our increasingly scarce wetlands in order to extract more oil--which is well known to be environmentally destructive AND contributing to global climate change. The amount of environmental degradation (pipelines, storage tanks, contaminated land, soil, water) that may or would occur with this project, is completely unacceptable.

2. It is NOT acceptable to utilize publically owned lands, originally cited for the purpose of RESTORING the LCWetlands (which do desperately need restoration. Currently, the visible stretch of "wetlands" along PCH across from Marina Pacifica is an utter embarrassment to our city. It is environmentally destructive and irresponsible to continue to subject our wetlands to further degradation. We barely have any wetlands left in the entire state of California.

3. 120 new oil wells in the area would be completely unacceptable. The existing 53 need to be removed, not added to, and not waiting 40 years to clean up the mess. 40 years is a long time in anyone's life.

4. The resulting air pollution is also unacceptable. Long Beach residents have long had to bear the burden of the Port pollution, as well as pollution from teh 71- and 405 freeways. When I go jogging or skating, and I wipe my brow on my white shirt--there is dark soot. We really don't need methane gas and other contaminants to add to the diesel particulate. We all have to live here and breathe this air; and this project would cause regression in our air quality, not progress.

5. Groundwater, the wetlands, and Alamitos Bay will be vulnerable to contamination from this project. Why is it even an option to consider ruining our public treasures, for private profits?

6. BOMP's project would destroy more sacred locations of the Native peoples, who have already been displaced far too much.

7. Oil projects have already been demonstrated to be seismically risky; and this one would occur right near the Newport Inglewood fault.

Honestly, I am finding the amount of destruction to our already suffering lands and people, to be overwhelming. At some point, private profits have to take a back seat to the well being of the environment and the local residents. I would argue that this time is NOW.

20-9

Please do NOT approve this project.

Sincerely,
Andrea L. Bell, LCSW
(562)243-9963

—
Andrea L. Bell, LCSW, SEP
Licensed Clinical Social Worker, Somatic Experiencing Practitioner
512 Redondo Avenue, Suite A
Long Beach, CA 90814
(562)243-9963
www.somaticwise.net

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Responses to Comment Letter 20

Response 20-1

The comment requests the proposed project not be approved because extracting more oil is not worth risking the destruction of the wetlands and is known to be environmentally destructive and contribute to climate change.

As described in Draft EIR Chapter 2, *Project Description*, part of the proposed project is the restoration of the wetlands. The first two objectives of the project are to (1) 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, and (2) restore tidal salt marsh habitat and associated subtidal, intertidal, transitional, and upland habitats, taking into consideration potential sea level rise due to climate change. Therefore, project impacts to the wetlands would be beneficial.

In regards to climate change, Draft EIR Section 3.6, *Greenhouse Gas Emissions*, evaluates the potential for the proposed project to result in adverse impacts related to GHG emissions. The analysis is based on review of available GHG reports, the relevant regulatory ordinances, and a discussion of the methodology and thresholds used to determine whether the proposed project would result in significant impacts. This section analyzes the potential for both project-level and cumulative environmental impacts, including climate change. The analysis determined that impacts to GHG are less than significant with implementation of Mitigation Measure GHG-1, which ensures the project complies with the Cap-and-Trade Program as administered by CARB.

Response 20-2

The comment states that it is not acceptable to risk destruction of our increasingly scarce wetlands in order to extract more oil and notes that the environmental degradation that may or could occur from pipelines, storage tanks, contaminated land, soil, and water is unacceptable.

As discussed in the Section 3.7, *Hazards and Hazardous Materials*, Section 3.7.3, Regulatory Framework, all aspects of the installation, operation, plugging, and abandonment of oil wells and oil production systems is regulated by DOGGR, with the regulatory requirements summarized in DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources.

As discussed in Draft EIR Section 2.5.1.1, Synergy Oil Field Site, pp. 2-25 through 2-42, and Section 2.5.1.2, City Property Site, pp. 2-42 through 2-49, the existing oil wells would be plugged and abandoned in accordance with DOGGR regulations, resulting in the removal of all currently existing oil wells and associated infrastructure from on the Synergy Oil Field and City Property sites, the properties to be restored as wetland habitat, thus removing the potential of spills in the wetlands.

As discussed in Draft EIR Section 3.7, pp. 3.7-6 to 3.7-8, in the subsections on the 2016 and 2017 Soil Investigations, the Applicant has been investigating and remediating contaminated soil on the Synergy Oil Field site in preparation for the restoration of the wetlands habitat. As explained on Draft EIR p. 3.7-27, under Impact HAZ-1, the results of the investigations have characterized the nature and extent of contamination, and identified 24,000 tons of contaminated soil that would be removed from the site under the regulatory oversight of RWQCB as a part of the project. The removal of this contaminated soil would improve the overall quality of the site conditions.

As explained in Section 3.5, *Geology, Seismicity, and Soils*, under Impact GEO-1, Draft EIR p. 3.5-31, the Applicant conducted a study to identify 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 to be accommodated by sliding on the aboveground supports and accommodate relative axial displacement through flexure of bends in the pipeline. In addition, the pipeline would have stress loops, pressure gauges, automatic shutoff devices, alarms, and valves at specific distances, as required by DOGGR, which would shut the pipeline system 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. The pipeline design study is provided in Appendix E8, Pipeline Design Assessment.

As discussed in Draft EIR Section 2.5.1.3, Pumpkin Patch Site, pp. 2-52 through 2-58, and Section 2.5.1.4, LCWA Site, pp. 2-59 through 2-64, new oil wells would be installed using modern technology in accordance with DOGGR regulations, resulting in safer operations of the oil wells and associated infrastructure. The wells would include BOPE, designed to prevent spills with automatic shutoff systems. The wells would be installed in well cellars, designed to contain fluids in the event of a leak. Additional information on drilling and production is provided in Appendix E5, Oil Drilling and Production Overview White Paper.

Response 20-3

The comment notes that using publicly owned lands that are meant to restore the wetlands for this project is unacceptable and subjecting the wetlands to further environmental degradation is irresponsible given that they are in desperate need of restoration.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to this comment, it is unclear what the comment is referring to as “public lands.” Further, refer to Response 20-1 concerning the wetlands restoration component of the proposed project.

Response 20-4

The comment notes that adding 120 oil wells to the area is unacceptable. Although the existing 53 oil wells should be removed, and it should not take 40 years to clean up.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, refer to Response 13a-27.

Response 20-5

The comment notes the air pollution that would result from this project is unacceptable since Long Beach residents are already subject to Port and freeway pollution.

The Draft EIR evaluated impacts to air quality and GHG emissions in Section 3.2, *Air Quality*, and Section 3.6, *Greenhouse Gas Emissions*. As discussed in Section 3.2, *Air Quality*, the construction of the project would result in potentially significant short-term impacts for VOC and nitrogen oxide (NO_x) emissions. Implementation of Mitigation Measure AQ-1 would reduce the construction VOC emissions to less

than significant. Implementation of Mitigation Measure AQ-2 would reduce the construction NO_x emissions; however, construction would still exceed the regional NO_x threshold of 100 pounds per day on a temporary basis during periods of maximum construction activity. Since Mitigation Measure AQ-2 requires the use of construction equipment that meets the most stringent emissions standards for construction equipment, there are no feasible measures to reduce the construction NO_x emissions to less than the threshold. As such, the short-term impacts to air quality during project construction, and specifically during periods of maximum construction activity, would be significant and unavoidable for NO_x emissions. Long-term operation of the project would result in potentially significant long-term impacts for NO_x emissions. Implementation of Mitigation Measure AQ-3 would reduce the operational NO_x emissions to less than significant. All other regional and localized emission impacts would be less than significant. Health risk impacts from toxic air contaminant emissions would be less than significant with implementation of Mitigation Measures AQ-2 and AQ-3. With respect to cumulative air quality impacts, with implementation of Mitigation Measures AQ-2 and AQ-3, cumulative air quality impacts would be less than significant, with the exception of the short-term construction NO_x impact, which would be a significant and unavoidable cumulative impact on a temporary basis during periods of maximum construction activity.

As discussed in Section 3.6, *Greenhouse Gas Emissions*, the project's construction and operational GHG emissions would be mitigated to less than significant based on the project's overall energy efficient design features and compliance with required GHG reduction plans and policies, including implementation of Mitigation Measure GHG-1, the California Cap-and-Trade program.

Response 20-6

The comment notes that the project would risk groundwater, the wetlands, and Alamitos Bay to project contamination for private funds.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, refer to Response 20-2 for a discussion of contamination.

Response 20-7

The comment notes that the proposed project would destroy sacred locations of native peoples.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. In accordance with AB 52 and SB 18, the City has consulted with tribal representatives, and as a result, mitigation measures have been identified to address any potential impacts to cultural resources. Through consultation, it was determined that no sacred sites would be impacted by the proposed project; thus, any sacred sites in the general area surrounding the project would not be impacted by the project. Moreover, refer to Responses 13a-16 and 13a-23.

Response 20-8

The comment notes that oil projects have been shown to be seismically risky and this project would take place near the Newport Inglewood fault.

As explained in Draft EIR Section 2.5.1.3, Pumpkin Patch Site, p. 2-54, and Section 2.5.1.4, LCWA Site, p. 2-63, the Applicant would drill water injection wells to reinject produced water and oil processing water back into the oil production zones. Oil production wells bring up oil, water, and gas from the production formation. Water injection wells inject sufficient quantities of water back in to the production formation to replace the volume of fluids extracted and restore the existing pressure conditions. The injected water is a mixture of water derived during the oil extraction process, and also water obtained from the source wells. Source wells are wells used to pump salt water from a deep reservoir. Note that water injection wells would be installed on both sides of the Newport Inglewood Fault to ensure that produced water is returned to oil production zones on both sides of the fault. Repressurizing the oil production zones would prevent subsidence that might trigger movement along the fault. The impact from potential subsidence would be less than significant, as discussed in Draft EIR Section 3.5, *Geology, Seismicity, and Soils*, under Impact GEO-6, p. 3.5-7. As discussed in the Regulatory Framework, the regulatory requirements to prevent subsidence by repressurizing oil production zones are summarized in DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources. Additional information describing the injection of produced water is provided in Appendix E7, Water Injection White Paper.

Response 20-9

The comment notes that the destruction to the wetlands and people is too much and the wellbeing and the environment and people should be put before private profits. The comment requests the project not be approved.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.4.7 Susan Miller, September 5, 2017

Comment Letter 21

Comment Letter 21

Craig Chalfant

From: SUSAN MILLER <mpshogrl@msn.com>
Sent: Tuesday, September 05, 2017 10:33 AM
To: Craig Chalfant
Subject: Deny/Los Cerritos Wetlands Restoration and Oil Consolidation Project Draft EIR

Hi Craig,

Please include this letter in the official record.

Any changes to the Wetlands destroys the wetlands, it is suppose to be a natural space that is why it is called a Wetlands. Any disturbances can pollute the air, water land and wildlife. I don't think ownership of this land is free and clear to do this change either.

I am respectfully against this project.

Regards,
Susan Miller

21-1
21-2
21-3

Responses to Comment Letter 21

Response 21-1

The comment notes that any changes to the wetlands destroy the wetlands as it is supposed to be a natural space, and disturbance can pollute air, water, land, and wildlife.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, as described in Draft EIR Chapter 2, *Project Description*, part of the proposed project is the restoration of the wetlands. The first two objectives of the project are to (1) 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, and (2) restore tidal salt marsh habitat and associated subtidal, intertidal, transitional, and upland habitats, taking into consideration potential sea level rise due to climate change. Therefore, project impacts to the wetlands would be beneficial, although the Draft EIR identifies and discloses a potential short-term impact related to air pollutant emissions. Additionally, the commenter is referred to the Draft EIR Section 3.3, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*, for a full analysis on these topics.

Response 21-2

The comment expresses the belief that ownership of the project site is not free and clear to make the proposed changes.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to this comment, it is unclear what the comment is referring to as “public lands.” Further, refer to Response 20-1 concerning the wetlands restoration component of the proposed project.

Response 21-3

The comment states opposition to the proposed project.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.4.8 Jessica Ripoll, September 5, 2017

Comment Letter 22

Comment Letter 22

Subject: FW: I Do Not Support Los Cerritos Wetlands Restoration and Oil Consolidation Project

From: Jessica Ripoll [<mailto:jessica@jordanan.com>]

Sent: Tuesday, September 05, 2017 12:48 PM

To: Craig Chalfant <Craig.Chalfant@longbeach.gov>

Subject: I Do Not Support Los Cerritos Wetlands Restoration and Oil Consolidation Project

I am writing to you to tell you I CARE about the health of the wetlands, the Colorado Lagoon, the Alamitos Bay. Our beaches could be destroyed by this for-profit plan to extract 200 million barrels of oil.

22-1

This appears to be a for profit only project. Would it not be more wise for the city to acknowledge the steadfast decline in oil demand as green energy is swiftly taking the lead.

I care about the health of my family as one of us swims in Alamitos Bay almost daily!

22-2

I also care about three different shorebird populations, including the Savannah Sparrow, now thriving in the Los Cerritos Wetlands, that will be destroyed if the oil company's restoration plan goes through. The amount of planned earthmoving activity and destruction of habitat (even temporary) will be fatal to these flocks. El Dorado Audubon hired their own biologist to review the project, and he has stated that the oil company's only interest is in building a berm to protect it's new drilling platform and that the now healthy wetlands will not survive the oil company's plans to drain their polluted ponds and soils into Steamboat Slough.

22-3

22-4

Please listen to the people and do not allow this to go thru!

Do Not Support Los Cerritos Wetlands Restoration and Oil Consolidation Project

THANK YOU!

Jessica Ripoll

Responses to Comment Letter 22

Response 22-1

The comment states the health of the wetlands, the Colorado Lagoon, and Alamitos Bay, and beaches could be destroyed by this for-profit plan to extract 200 million barrels of oil, which is in decline with the rise of green energy.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to this comment, the Draft EIR determined that impacts to biological resources and water quality would be less than significant with the implementation of mitigation measures. The commenter is referred to Draft EIR Section 3.3, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*, for a full analysis on these topics.

Response 22-2

The comment expresses concern about the health of the commenter's family, as one member swims in Alamitos Bay on a daily basis.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to this comment, as discussed in Section 3.7, *Hazards and Hazardous Materials*, Section 3.7.3, Regulatory Framework, all aspects of the installation, operation, plugging, and abandonment of oil wells and oil production systems is regulated by DOGGR, with the regulatory requirements summarized in DOGGR Publication No. PRC10, California Statutes and Regulations for Conservation of Oil, Gas, & Geothermal Resources. Moreover, refer to Response 20-2.

Response 22-3

The comment is concerned about the three different shorebird populations, including the savannah sparrow, now thriving in the wetlands, as earthmoving activity and destruction of habitat (even if temporary) would be fatal to these flocks.

Project impacts to special-status shorebirds and their habitats, including Belding's savannah sparrow, were analyzed in Draft EIR Section 3.3, *Biological Resources*, under Impact BIO-2. As discussed therein, impacts to nesting birds and active nests would be avoided as required by Mitigation Measure BIO-6, and breeding habitat for Belding's savannah sparrow would be mitigated at a minimum of 1:1 (created:impacted) as required by Mitigation Measure BIO-4. Further, the proposed restoration would increase the functions and values of suitable habitat for Belding's savannah sparrow and other shorebirds.

Response 22-4

The comment notes that El Dorado Audubon hired a biologist to review the project and he stated that the oil company's only interest is building a berm to protect its new drilling platform and that the healthy wetlands will not survive the oil company's plans to drain their polluted ponds and soils into the Steamboat Slough. The comment urges decision-makers to not approve the project.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for

consideration. Nevertheless, in response to this comment, refer to Responses 10b-1 through 10b-30 for responses to the El Dorado Audubon Society comment letter prepared by Hamilton Biological.

9.2.4.9 Anne Thompson, September 5, 2017

Comment Letter 23

Comment Letter 23

From Anne Thompson September 05, 2017
56 Park Avenue
Long Beach 90803

Comments
re: Los Cerritos Wetlands
Oil Consolidation and
Restoration Project
(SCH# 2016041083)

As a long time resident of Belmont
Shore I object to this
project for the following reasons

- 1- the danger of an accidental
oil spill during the project
which would compromise
the wetlands
- 2- Provision of so much public
access to the wetlands habitat
would also endanger the site
- 3- I strongly doubt the need for new
oil production facilities such as
this Synergy Oil Field Project
as the price of oil is fast decreasing

thank you for your consideration
Sincerely
Anne Thompson

23-1
23-2
23-3

Responses to Comment Letter 23

Response 23-1

The comment expresses concern about the dangers of an accidental oil spill that would compromise the wetlands.

As discussed in Chapter 2, *Project Description*, the existing oil wells would be plugged and abandoned, resulting in the removal of all currently existing oil wells and associated infrastructure from on the Synergy Oil Field and City Property sites, the properties to be restored as wetland habitat, thus removing the potential of spills in the wetlands. As explained in Draft EIR Section 3.5, *Geology, Seismicity, and Soils*, under Impact GEO-1, p. 3.5-31, the Applicant conducted a study to identify 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 to be accommodated by sliding on the aboveground supports and accommodate relative axial displacement through flexure of bends in the pipeline. In addition, the pipeline would have stress loops, pressure gauges, automatic shutoff devices, alarms, and valves at specific distances, as required by DOGGR, which would shut the pipeline system 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. Moreover, refer to Response 20-2.

Response 23-2

The comment expresses concern about opening up the wetlands to the public as that could endanger the site.

As described in Draft EIR Section 2.5.1.1, Synergy Oil Field Site, pp. 2-38 to 2-41, access would be limited to the visitors center and specific trails. In addition, trail use would be limited to docent-led use only.

Response 23-3

The comment states there is no need for the project due to falling oil prices.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to this comment, falling oil prices are not within the purview of CEQA.

9.2.4.10 Ann Cantrell, September 6, 2017

Comment Letters 24a and 24b

Comment Letter 24a

From: anngadfly@aol.com [<mailto:anngadfly@aol.com>]
Sent: Wednesday, September 06, 2017 3:52 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Subject: Comments on Land Swap DEIR

Dear Craig,

Attached are my comments for the Los Cerritos Wetlands Restoration and Oil Consolidation Project. Please let me know if you can open it.

Thank you,
Ann Cantrell

24a-1

Comment Letter 24b

Los Cerritos Wetlands Restoration and Oil Consolidation Project

Sept. 6, 2017

I request this EIR be postponed until the new zoning for the area, SEASP, has been approved and certified. Basing the EIR on the current SEADIP does not conform with the city's LCP. The land north of Second St. between PCH and Studebaker, was County Property when SEADIP was adopted. When the County area was transferred to the City, this was considered a "white hole" because it was not covered by city coastal planning.

24b-1

The two zoning plans are very different in how they protect the wetlands. SEASP does not allow any development on the wetlands; SEADIP allows residential and industrial development on the wetlands. In fact, there is a suggested Alternative 2: No Project/Development Consistent with Existing Zoning Alternative, which would allow development currently permitted by SEADIP. There is no Alternative which would conform with the replacement zoning, SEASP, in other words No Project/Development Consistent with Proposed Zoning Alternative.

24b-2

There is also an Alternative allowing a non-wetland restoration use on the LCWA site: Alternative 4: SCE Substation Alternative. However, there is no alternative allowing for the court ordered use. Don May of Earth Corps, the former owner of the 5 acres at Studebaker and 2nd, states that when SC Edison conveyed this property to Earth Corps as settlement for the damage done to marine life at San Onofre, the court ordered that the property was to be used to further the restoration of the estuary of the San Gabriel River. On August 31, 2017, when asked if this was still the case, Don wrote: "Yes, it is still valid and binding, in as much as I am still signatory and have never been contacted as to any change". Don added: The tentative plan at the time was to use the 5 acres to construct a library to house Dr Rim Fay's extensive Pacific Bio Marine library with extensive instructions on how to propagate every

24b-3

24b-4

24b-5

Los Cerritos Wetlands Restoration and Oil Consolidation Project

single plant and critter found on the entire So. Cal. Bight, along with his aquaria copied after DR Ed Ricketts' and used in the film Cannery Row, and to use it under a Cal State LB program to propagate endemic species for estuary restoration and partially fund construction and contain a community meeting room."

24b-5
(cont.)

A marine library/visitor center was never considered, rejected or studied as an Alternative use for the LCWA site. Instead of an SCE Substation, a solar energy site could be another Alternative.

24b-6

For the above reasons I consider the Alternatives studied inadequate.

24b-7

The city's Initial study for the EIR lists numerous Potentially Significant Impacts. "The proposed project could result in potentially significant impacts with regard to aesthetics, air quality, biological resources, cultural resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, public services (fire protection, police protection and parks), recreation, transportation and traffic, and utilities and service systems."

24b-8

Incredibly, the only Significant and Unavoidable Impacts found for this project was 4.2.1 Air Quality!

"As discussed in Section 3.2, Air Quality, the proposed project would result in significant and unavoidable air quality impacts with regards to the violation of the quality standards for criteria pollutants during construction. . . . Therefore, regional NOX emissions for construction of the proposed project would be significant and unavoidable."

I believe these emissions are avoidable with a No Project Alternative.

24b-9

Although I think there are significant impacts in many areas of the DEIR, such as Noise, Lights, Cultural Resources, and Public Services, I have only time to address a few.

24b-10

Los Cerritos Wetlands Restoration and Oil Consolidation Project

Using Steam Shovel Slough as the basis for a mitigation land bank violates 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.

24b-11

The original plan of the Los Cerritos Wetlands Land Trust was to restore the wetlands by bringing in fresh water from the San Gabriel River. The current plan conflicts not only with this plan, but with the LCWA's own Final Conceptual Restoration Plan for the wetlands. The restoration of the northern portion of the property proposed by Synergy involves bulldozing channels to connect ancient, healthy wetlands with polluted ponds and soil contaminated from years of oil operations on the property. This 'restoration' plan includes removing the present berms that separate the functioning, pristine portions of the wetlands around Steamshovel Slough from the current oil operations. The purpose of this is to increase tidal flow into the wetlands. It appears this action will only flood with salt water the upland habitat currently used by birds, especially the endangered Belding Savannah Sparrow. Wetland plants, such as pickleweed and Southern Tar Plant, cannot live when covered by water, even part of the time. The flooding will also destroy habitat for insects, reptiles and mammals in this part of the wetlands.

24b-12

24b-13

I find no mention of the Little Blue Butterflies that used to be prevalent on the berm that runs parallel to Studebaker. Are they no longer there or was the survey taken at the wrong time of year? I was unable to find the dates and time of day any of the biological surveys were done.

24b-14

The DEIR states that there will be both temporary and permanent impacts to Sensitive Natural Communities for the northern 76.52 acres.

24b-15

Los Cerritos Wetlands Restoration and Oil Consolidation Project

I can find no mention of removal of oil, asphalt, sludge, drilling muds or other toxins on the land before it is flooded. There must be a clean-up of any area which might experience tidal flow, either present or with expected sea level rise.

24b-16

The Mitigation Measure BIO-6 Nesting Bird and Raptor Avoidance states:

- 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.

24b-17

- 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 Ridgeway'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

Los Cerritos Wetlands Restoration and Oil Consolidation Project

and/or CDFW prior to allowing work to commence within the 500-foot buffer."

These mitigations are not adequate. No activity of any kind should take place in nesting areas during the avian nesting season, especially ground nesting birds like the Belding's Savannah Sparrow. Any disturbance that causes birds to leave their nests can result in the death of the eggs or young.

There is no mitigation for the habitat which will be covered and destroyed by tidal flow.

I would urge that no trees, native or non-native, be removed from the wetlands until replacement trees have reached a height useable for birds, especially raptors, to hunt from, and for Great Blue Herons to nest in. Even non-native trees, especially palms, are used by many birds for nesting and resting. Many scientists are now seeing the value of non-native plants which provide food, nesting material and sites and covering for wildlife.

3.7 Hazards and Hazardous Materials

It appears that few areas of the Synergy site were tested. I see no test sites along the Eastern border adjacent to Studebaker Road, where there is a history of a toxic dumping. Also, it appears that there was only one test site on the City Property. This is inadequate for an area which has had years of oil drilling activity. I believe these areas need more core sampling and subsequent remediation.

PIPELINES

Chapter 3.3.24 contains this quote:

24b-17
(cont.)

24b-18

24b-19

24b-20

24b-21

Los Cerritos Wetlands Restoration and Oil Consolidation Project

"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 US/State and wetlands as defined by CCA."

Year 44 and Beyond

"Consistent with the well removal phasing schedule, all remaining wells would be removed within 40 years from establishment of the New Occupancy Date. Operation of the pipeline would continue for the life of the project."

24b-21
(cont.)

I fail to see the advantage of removing old pipelines and replacing them with new ones with the idea that they will remain forever and calling this an improvement. Yes, the old pipes and oil wells must be removed from the wetlands. New ones should not replace them.

The pipelines going under Second St. from the Pumpkin Patch and along the Bryant property are on an earthquake fault and subject to rupture. This would be disastrous for the wetlands.

In addressing the earthquake fault running under this area, the DEIR states"

"The proposed pipeline corridor width required for the buried pipelines and utility corridor would be approximately 5.5 feet. The underground utility corridor would be constructed to a depth of approximately 5 feet below ground surface. In the unlikely chance that an adverse event occurs, such as an earthquake, pressure transmitters would be able to detect a pressure imbalance, and shut-off valves located on the Pumpkin Patch and LCWA sites would shut down the flow."

24b-22

Somehow, I am not comfortable with just shut-off valves protecting the wetlands from oil spills during an earthquake. I suggest the pipeline should not be built in this location and be replaced by Alternative 5, the Relocated Pipeline Alternative.

Los Cerritos Wetlands Restoration and Oil Consolidation Project

“This alternative would reduce impacts to habitat areas on the City Property site that would occur with construction of the aboveground pipeline and utility corridor under the proposed project. This alternative would avoid sensitive habitat areas and would still allow for consistency with the LCWA’s Conceptual Restoration Plan. In addition, this alternative would provide a larger buffer between future tidal wetlands and existing freshwater wetlands that should be protected from salt water influence. Furthermore, this alignment would create more area for alkali meadow habitat to be restored, which is important since approximately 30 acres of alkali meadow would be lost due to tidal flooding that is proposed by the LCWA’s Conceptual Restoration Plan.”

24b-22
(cont.)

TRAFFIC

Although the DEIR claims there will be no increased impacts from this project because construction will not occur at peak traffic times, I would argue there are few times at PCH and 2nd or Studebaker and 2nd when traffic is not at a stand still or backed up for blocks.

Even the DEIR states:

24b-23

3.15.4.4 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.”

This needs mitigation.

HYDROLOGY AND WATER QUALITY

The proposed water injection is said to be for combating subsidence, but is also a method used for fracking or ‘well enhancement’. This requires the use of potable water, a scarce commodity during a drought. Since LB obtains 50% of its water from water wells, I am also concerned about contamination of our drinking water.

24b-24

The Draft EIR states:

24b-25

Los Cerritos Wetlands Restoration and Oil Consolidation Project

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. (Less than Significant)

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 (i.e., water for mixing with the drilling mud and concrete for the surface completions) and plugging of existing oil and injection wells (i.e., water for mixing with the drilling mud and cement grout) as wells are plugged and abandoned on the Synergy Oil Field and City Property sites and relocated to the Pumpkin Patch and LCWA sites. In addition, other construction activities such as concrete mixing and dust control for buildings, well cellars, and associated infrastructure would require water. The local water supply is served by the Long Beach Water District (LBWD), which receives a mix of groundwater, imported water and recycled water (see Section 3.17, Utilities and Service Systems, for more details on project area water supply and project demand). Therefore, construction water demand could contribute to a reduction groundwater supplies.

24b-25
(cont.)

This sounds like a depletion to me.

Oil Wells

Water supplies would be required for (1) the drilling of the oil wells for oil production and injection wells for produced water for the drilling mud and cleaning of equipment; (2) the plugging and abandonment of non- productive wells for the drilling mud, cement grout, and cleaning of equipment; and (3) the hydrostatic pressure testing of pipelines and storage tanks. The required water would be supplied by tapping into existing LBWD water lines.

24b-26

The analysis of water supply from all sources, which includes groundwater, imported water, and recycled water, is provided in Section 3.17, Utilities and Service Systems, Impact UT-2 and includes Table 3.17-4, Summary of Projected Annual Water Usage, which 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.

Los Cerritos Wetlands Restoration and Oil Consolidation Project

The listed years are the anticipated years; the actual years when well installations and abandonment would occur would vary depending on the actual rate of drilling new wells and the timing at which older existing wells become unproductive. In any case, 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. As discussed in the Utilities section, 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. Therefore, the impacts to groundwater supplies during construction would be less than significant.

All Other Non-Oil Wells Structures

Water required for construction activities such as concrete mixing and dust control would be supplied by tapping into existing LBWD water lines. Since the LBWD receives a mix of groundwater, imported water and recycled water, construction water demand could contribute to a reduction groundwater supplies. As discussed above, 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 year. Therefore, the impacts to groundwater supplies would be less than significant.

24b-26
(cont.)

The processes of separating the oil from the produced water, as well as other operational activities, would require water supply, as discussed in Section 3.17, Utilities and Service Systems, and groundwater is the primary source of water for the LBWD; 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. “

The DEIR states over and over that Long Beach expects to have plenty of available drinking water for the next 60 years. I find this hard to believe. If LBWD has so much available water, why is there rationing and a shortage of water to keep parks green? California is still not out of a 4 year drought and all predictions are for increasing warming. Water use is a very good reason to deny this project.

Los Cerritos Wetlands Restoration and Oil Consolidation Project

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. (Less than Significant)

Mitigation Measures: None required.

Significance Determination: Less than Significant.

According to recent studies, sea level rise is occurring much faster than anticipated just a few months ago. I question whether these predictions in the DEIR are correct and believe new studies on sea level rise are needed.

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. (Less than Significant)

"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."

"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."

Mitigation Measures: None required.

Significance Determination: Less than Significant.

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. (Less than Significant)

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 TsunamiReady, meaning it would implement mitigative, preparatory, and response measures to avoid or lessen

24b-27

24b-28

Los Cerritos Wetlands Restoration and Oil Consolidation Project

substantial impacts to structures and persons associated with tsunami events, including 24-hour notice and evacuation route signs. Further, Pacific Coast Highway 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. . Therefore, impacts would be less than significant.

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. Impacts would be less than significant.

Mitigation Measures: None required.

Significance Determination: Less than Significant.

3.8.4.4 Cumulative Impacts

Geographically, the project area is hydraulically bounded by the Los Cerritos Channel along the north and west, and the San Gabriel River along the south and east, with Alamitos Bay to the southwest. Accordingly, the geographic scope of cumulative hydrologic and water quality impacts would be limited to the project area and the immediately downstream area to Alamitos Bay. The timeframe during which the proposed project could contribute to cumulative hydrologic and water quality effects includes the construction and operations phases.

Cumulative Impacts during Project Construction

24b-28
(cont.)

Los Cerritos Wetlands Restoration and Oil Consolidation Project

Water Quality

"As described in Impact HY-1, the construction of oil wells could adversely impact the water quality of non-oil production zones if drilling muds or oil escapes the well boreholes and enters aquifers with beneficial uses other than oil production. In addition, construction activities over the locations of active, idle, or plugged wells could damage well seals and cross contaminate aquifers; however, numerous regulations required by 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, as discussed above, 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). "

24b-28
(cont.)

The DEIR dismisses all of the possible hazards to water quality: oil drilling, flooding, tsunami, and sea level rise as less than significant. Preparers seem to rely on the present river levees and some wetland berms to protect human life, the wetlands, oil wells, and structures. I would argue that the recent disasters from Hurricane Harvey in the Houston area should cause EIR preparers to take a closer look at these issues and provide better mitigation measures.

OMISSIONS: LIGHT AND NOISE IMPACTS ON WETLAND ANIMALS

I was unable to find any mention of Light impacts on either animals or humans. This must be included in the Final EIR. (For more information on lighting, I suggest "Ecological Consequences of Artificial Night Lighting" edited by Dr. Travis Longcore, USC).

24b-29

Also, although noise was studied, it addressed only human impacts, not animals. This needs to be added to the FEIR.

Los Cerritos Wetlands Restoration and Oil Consolidation Project

Lastly, I disagree with the main purpose of this 'Land Swap' which allows Synergy to access a new source of oil (120 new wells) when we should be finding ways to eliminate our reliance on fossil fuels and use renewable energy. Oil operations will continue with the 35 wells on the current Synergy property, plus from the 18 wells on the city's property behind the Market Place for 40 years or until the oil is gone. I believe there is a better use for the 5 acres at Studebaker and Second St. than 120 foot drill rigs and 48 foot high tanks full of explosive oil. Leave it in the ground!

24b-30

Ann Cantrell 3106 Claremore Long Beach, CA 90808

Responses to Comment Letters 24a and 24b

Response 24a-1

The comment is an email transmittal letter submitting a comment letter as a PDF attachment.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Refer to responses to Comment Letter 24b for responses to the attachment.

Response 24b-1

The comment requests the EIR be postponed until the new zoning for the area, SEASP, is approved and certified and notes that basing the EIR on the current SEADIP does not conform with the City's LCP. The comment also notes that the land north of 2nd Street between PCH and Studebaker Road, was County Property when SEADIP was adopted. When the County area was transferred to the City, this was considered a "white hole" because it was not covered by city coastal planning.

Refer to Draft EIR Section 3.9, *Land Use and Planning*. As described therein, the proposed project is located within the SEADIP Specific Plan and the proposed Southeast Area Specific Plan (SEASP) Update. As shown in Figure 2-13, Zoning Designations (Planned Development District 1: SEADIP), all four of the individual sites have a zoning designation of PD-1 (SEADIP) subareas (11a, 19, 25, and 33) (City of Long Beach 2006). The City is in the process of amending the existing PD 1 with the SEASP, a new specific plan with conventional zoning on a few select parcels. The proposed SEASP would be adopted as a City ordinance and would serve as the zoning for the plan area. In addition, as a part of the SEASP, an amendment to the City's General Plan and LCP would be required.

Given that the draft SEASP is not adopted as of publication of this Draft EIR, the analysis provided and determination of the project's land use consistency impacts relied on the project's consistency with the goals and policies outlined in the currently in-place SEADIP. The draft SEASP guiding principles and development standards were provided here for informational purposes.

Under the draft SEASP, the Synergy Oil Field and City Property sites would have a land use designation of Coastal Habitat, Wetlands, and Recreation (CHWR), and the Pumpkin Patch and LCWA sites would have a land use designation of Industrial, and would allow retail and hotel uses.

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. Under the proposed project, oil production facilities would be immediately removed from the northern 76.52 acres of the Synergy Oil Field site, and oil production activities would be phased out over time on the southern portion of the site. In addition, a visitors center and associated surface parking lot would be established on the southern portion of the site. As such, all uses proposed on the Synergy Oil Field site would be consistent with the land use designations in the proposed SEASP.

Under the proposed SEASP, the land use designation on the City Property site would also be CHWR, which provides for coastal restoration, coastal access, visitor-serving recreation, and biological reserves, and, thus, the zoning would be the same as the land use. In addition, this designation provides for the continuation of an existing use. 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.

Under the proposed SEASP, the land use designation on the Pumpkin Patch and LCWA sites 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.

Response 24b-2

The comment notes that the SEASP and SEADIP are very different in how they protect the wetlands, with the SEASP not allowing any development and the SEADIP allowing for residential and industrial development. The comment points out that the analysis for Alternative 2, No Project/Development Consistent with Existing Zoning, looks at zoning consistent with SEASP and there is no alternative that analyzes consistency with the proposed zoning.

The comment does not raise a substantive issue on the content of the Draft EIR as it does not relate to physical impacts to be studied under CEQA but rather provides an opinion concerning the proposed project land use considerations of the City. The comment will be included in the administrative record and will be provided to City decision-makers for consideration. Refer to Response 24b-1 and Section 3.9, *Land Use and Planning*, for a discussion of land use consistency.

Response 24b-3

The comment notes that while there is an alternative that allows a non-wetland restoration use on the LCWA site (Alternative 4, SCE Substation), there is no alternative that analyzes the court ordered use.

The comment does not raise a substantive issue on the content of the Draft EIR, but rather provides an opinion concerning the proposed project restoration activities. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, refer to Response 13a-2. The LCWA was deeded a 5-acre parcel that was long ago disconnected from the historical wetlands complex that contained no biological value. Refer to Response 13a-52.

Moreover, as described in Draft EIR Chapter 5, *Alternatives*, *CEQA Guidelines* Section 15126.6(f) states: “The range of alternatives required in an EIR is governed by a ‘rule of reason’ ... [O]f those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.” For purposes of the alternative analysis, each alternative assessed in this EIR was evaluated to determine the extent to which it could attain the basic objectives set forth by the Applicant for the proposed project.

Response 24b-4

The comment notes that when the SC Edison conveyed the property to Earth Corps as settlement for damage done to the marine life at San Onofre, the court ordered that the property was to be used to further the restoration of the estuary of the San Gabriel River, which Earth Corps still believes to be the case.

The comment does not raise a substantive issue on the content of the Draft EIR as it does not relate to physical impacts to be studied under CEQA. It will be included in the administrative record and will be provided to City decision-makers for consideration. However, in response to the comment, refer to Response 13a-26. The comment references a settlement with Southern California Edison (SCE) concerning the 5-acre LCWA site. In settlement for a lawsuit involving the SCE San Onofre Generating Station (*Earth Island Institute, Donald May and David Jeffries v. Southern California Edison Company* (U.S. District Court, S.D. Cal. Case No. 90CV1535-B)), SCE made an Offer to Dedicate (OTD), dated May 30, 2001 (subsequently recorded on November 28, 2001), over an approximately 5-acre parcel that it owned at the northeast corner of Studebaker Road and Westminster Avenue, referred to in the Draft EIR as the LCWA site.

Response 24b-5

The comment states out that Earth Corps' tentative plan for the property includes a marine library and visitor center and was never considered as an alternative for the LCWA site.

Refer to Response 24b-4. Moreover, refer to Draft EIR Chapter 2, *Project Description*, pp. 2-22 through 2-24, which describes the project's objectives regarding new public access opportunities would be provided through the relocation and renovation of the Bixby Field Office building into a visitors center and construction of a new perimeter access trail.

Moreover, as described in Draft EIR Chapter 5, *Alternatives*, *CEQA Guidelines* Section 15126.6(f) states: "The range of alternatives required in an EIR is governed by a 'rule of reason' ... [O]f those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project." For purposes of the alternative analysis, each alternative assessed in this EIR was evaluated to determine the extent to which it could attain the basic objectives set forth by the applicant for the proposed project.

Response 24b-6

The comment suggests that a solar energy site could be another alternative to the SCE Substation.

Refer to Draft EIR Chapter 2, *Project Description*, p. 2-54, which describes the project's microgrid system. Specifically, the project includes the construction of the project includes an energy system microgrid. A microgrid would integrate multiple energy sources to maximize energy efficiency and environmental benefits. Microgrid controls manage the interaction of all the energy production/supply and energy-consuming equipment, helping ensure increased efficiency, cost control, environmental benefits, and reliability/safety. Though most of the project's microgrid is located on the LCWA site (and described more fully under the LCWA site, Year 2, Construction of Non-Oil Facilities, below, some microgrid components are located on the Pumpkin Patch site. Specifically, a solar photovoltaic (PV) system would be installed, both on the rooftop of the office building and the warehouse. The system would produce approximately 160 kilowatts (kW) of electricity. Electric vehicle charging stations would also be installed in the office building parking lot.

Response 24b-7

The comment considers the alternatives studied to be inadequate for the reasons stated above.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, refer to Responses 24b-3, 24b-5, and 24b-6.

Response 24b-8

The comment notes that the project's Initial Study listed numerous potentially significant impacts; however, only air quality was found to be significant and unavoidable in the Draft EIR.

The City's Initial Study is included in the City's Draft EIR as Appendix A. The purpose of an Initial Study is to identify whether an EIR or a negative declaration must be prepared to analyze the potential impacts of a proposed project (14 California Code of Regulations Section 15365). Based on the Initial Study, the City determined that an EIR should be prepared. The Draft EIR addressed the environmental issues determined to be potentially significant as identified and disclosed in the Initial Study and based on input from agencies and interested individuals provided during the Scoping Meetings and comment letters on the NOP. A determination of potentially significant impact in the Initial Study suggests that the issue area should be evaluated further in the EIR; it does not guarantee that it will result in a significant and unavoidable impact. After a thorough analysis of each of the issue areas identified to be potentially significant in the Initial Study, the Draft EIR determined that all issues would result in less-than-significant impacts or less than significant with the implementation of mitigation measures, with the exception of air quality.

Response 24b-9

The comment expresses the belief that air quality emissions are avoidable with the No Project Alternative.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, the No Project (No Build) Alternative (Alternative 1) would avoid the proposed project's significant and unavoidable construction air quality impacts. With the exception of impacts related to objectionable odors, energy consumption, sea level rise and conflicting with an applicable land use plan (SEADIP) that would be greater under this alternative, all impacts associated with the remaining environmental issues would be similar or less than those of the proposed project.

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. Therefore, none of the proposed project objectives would be achieved by Alternative 1.

Response 24b-10

The comment suggests that there are significant impacts in many areas of the Draft EIR, including noise, lights, cultural resources, and public services.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, refer to the Draft EIR Section 3.11, *Noise*; Section 3.1, *Aesthetics*; Section 3.4, *Cultural Resources*; and Section 3.13, *Public Services*, which determined that impacts related to noise, lights, cultural resources, and public services (respectively) are less than significant with the implementation of mitigation measures. Specifically, Mitigation Measures NOI-1 through NOI-4, AES-2 (Lighting Plan), CUL-1 through CUL-9, and PS-1 (Fire Prevention and Protection Training) would reduce project impacts to less than significant.

Response 24b-11

The comment suggests that using Steam Shovel Slough as the basis for a mitigation land bank violates 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.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, refer to Response 13a-49.

Response 24b-12

The comment notes that the project's restoration plan for the northern portion of the property conflicts with the Los Cerritos Wetlands Land Trust Plan and the LCWA's own Final Conceptual Restoration Plan for the wetlands because it would bulldoze channels to connect ancient, healthy wetlands with polluted ponds and contaminated soil from years of oil operations on the property.

The comment expresses the opinion of the commenter and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, as explained on Chapter 2, *Project Description*, the project proposes the restoration of 76.5 acres of land for wetlands on the northern portion of the Synergy Oil Field site. These lands currently consist of a mix of uplands, wetlands, and degraded wetlands. Additionally, the Los Cerritos Wetlands is considered a degraded wetlands system, not a connected, ancient healthy marsh. Moreover, as discussed in Section 3.7, *Hazards and Hazardous Materials*, Phase II environmental assessments have been completed and identified 24,000 tons of contaminated soil that would be removed prior to commencing wetlands restoration activities. The comment will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 24b-13

The comment notes that the project's restoration plan includes removing the present berms that separate the functioning, pristine portions of the wetlands around Steamshovel Slough from the current oil operations to increase tidal flow into the wetlands. The comment notes that this is action will only flood with salt water the upland habitat currently used by birds, especially the endangered Belding savannah sparrow. Wetland plants, such as pickleweed and southern tar plant, cannot live when covered by water, even part of the time. The flooding will also destroy habitat for insects, reptiles and mammals in this part of the wetlands.

The installation of the seawall berm would provide for protection of upland habitats in the southern portion of the Synergy Oil Field site. Direct and indirect impacts to special-status wildlife, including Belding's savannah

sparrow, are discussed in Impact BIO-2, and Mitigation Measures BIO-3 through BIO-9 would avoid or minimize impacts to a level less than significant. The project would restore tidal marsh suitable for use by Belding's savannah sparrow. Further, the majority of the habitat occupied by this species (by Steamshovel Slough) would remain undisturbed by construction activities.

Response 24b-14

The comment points out that there is no mention of the Little Blue Butterflies that used to be prevalent on the berm that runs parallel to Studebaker Road and questions when the dates and time of day for all of the biological surveys.

It is unclear what species of blue butterfly the comment is referring to. If referring to Palos Verdes blue butterflies, this species is addressed in Draft EIR Section 3.3, *Biological Resources*, Table 3.3-8, Special-Status Wildlife, p. 3.3-24. As discussed in Table 3.3-8, Palos Verdes blue butterflies have not been observed on site, and there is no potential to occur on site due to lack of suitable habitat. Dates of all surveys performed on the project site are detailed in the Biological Technical Report.

Response 24b-15

The comment reiterates that the Draft EIR states there will be both temporary and permanent impacts to sensitive natural communities for the northern 76.52 acres.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, to respond to the comment, the proposed project would implement a wetlands habitat restoration project that would remediate, if necessary, and restore 76.52-acres of the northern portion of the Synergy Oil Field site. Refer to Draft EIR Chapter 2, *Project Description*, specifically at p. 2-28, which provides the proposed Restoration Plan's goal of the wetland restoration is to expand tidal connection areas south of Steamshovel Slough to provide the conditions necessary for the reestablishment of coastal salt marsh habitat and associated hydrologic, biogeochemical and habitat functions. In order to expand tidal flow into areas where it is currently lacking, it would be necessary to:

- Construct a new barrier consisting of sheet piles and earthen berms along the southern limits of the northern 76.52-acre restoration area of the Synergy Oil Field site;
- Establish tidal channels, by means of grading, to convey tidal water to areas that currently lack tidal flows;
- Remove segments of the existing berm and roads that currently separate Steamshovel Slough from non-tidal portions of the northern 76.52-acre restoration area of the Synergy Oil Field site; and
- Lower the areas along the northern edge of Steamshovel Slough from current elevations ranging from between 7.5 to 10.5 feet to elevations ranging between 5.1 to 6.1 feet, creating additional habitat that supports a diversity of high marsh species.

Response 24b-16

The comment states that the commenter was unable to find mention of removal of oil, asphalt, sludge, drilling muds, or other toxins on the land before it is flooded. The comment also states that there must be a clean-up of any area that might experience tidal flow, either at present or with expected sea level rise.

Refer to Response 24b-12.

Response 24b-17

The comment restates Mitigation Measure BIO-6, which addresses nesting birds and raptor avoidance. The comment notes that the mitigation measure is not adequate, and that no activity of any kind should take place in nesting areas during nesting season, especially with ground-nesting birds like the Belding's savannah sparrow. The comment states that any disturbance that causes birds to leave their nests can result in the death of the eggs or young.

Potential nesting impacts to Belding's savannah sparrow would be avoided and minimized through pre-construction nesting bird surveys and avoidance as identified in Mitigation Measure BIO-6. No work buffers would be implemented around any nests found, and any signs of agitation resulting from construction noise disturbance would be monitored by the biologist to prevent nest abandonment.

Response 24b-18

The comment points out that there is no mitigation for the habitat that will be covered and destroyed by tidal flow.

The tidal flows would re-establish coastal salt marsh habitat. As discussed in Impact BIO-3, 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.

Response 24b-19

The comment urges that no trees, whether native or non-native, should be removed from the wetlands until replacement trees have reached a suitable height for birds, especially raptors and Great Blue Herons, to hunt from and nest in. The comment also states that non-native plants, especially palm trees, are used by birds for nesting and resting, and that scientists are now seeing the value of non-native plants which provide food, nesting material, and protection for wildlife.

Potential impacts to nesting birds would be avoided and minimized through pre-construction nesting bird surveys within suitable nesting habitat (including trees) and avoidance as identified in Mitigation Measure BIO-6. Trees as well as built structures in the project area can also be utilized for perching or resting.

Response 24b-20

The comment references Draft EIR Section 3.7, *Hazards and Hazardous Materials*. The comment states that it appears that few areas of the Synergy Oil Field site were tested, and that they see no test sites along the Eastern border, adjacent to Studebaker Road, where there is a history of toxic dumping. The comment also points out that there is only one test site on City property, which the commenter believes is inadequate for an area that has had years of oil drilling activity. The comment states the belief that these areas need more core sampling and subsequent remediation.

As discussed in Draft EIR Section 3.7.2.2, Hazardous Materials at the Four Individual Sites, pp. 3.7-2 through 3.7-8, soil sampling has been conducted on the Synergy Oil Field and City Property sites at various locations around storage tanks (tank batteries), former sump areas, and debris and waste storage areas. As discussed on Draft EIR p. 3.7-4 and Figure 3.7-1, Hazardous Materials Sites, p. 3.7-5, the Studebaker/Loynes Disposal Site or City Dump and Salvage #4 is a closed landfill that was located on a narrow strip in the northeastern portion of the Synergy Oil Field site. No reported liquid or hazardous wastes were deposited at the site and depth to

refuse is estimated to be up to 25 feet. As explained in Draft EIR Section 2.5.1.1, Synergy Oil Field Site, p. 2-28, the grading to restore the wetlands habitat would lower some elevations from between 7.5 and 10.5 feet to elevations ranging between 5.1 to 6.1 feet. This lowering of a few feet would not reach the former landfill buried about 25 feet below grade.

In addition, and as discussed in the Response 24b-12, the results of the subsequent investigation received after publication of the Draft EIR completed characterizing the nature and extent of contamination on both the Synergy Oil Field and City Property sites, and confirmed that 24,200 tons of contaminated soils would be removed. The contaminated soil would be removed prior the restoration grading. With regard to the number of samples, in addition to the numerous soil samples collected and analyzed during previous (pre-2016) investigations, the recent 2016 to 2017 investigations resulted in the collection and analyses of the following number of soil samples from the listed number of borings.

Site	Number of boring locations	Total number of samples
Synergy Oil Field	49	103
City Property	8	22
Pumpkin Patch	17	41
LCWA	8	8

Response 24b-21

The comment quotes text from “Chapter 3.3.24” [the quoted text is from the first paragraph following Table 3.3-24 on Draft EIR p. 3.3-77], which states that 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 CCA. A second quote is inserted that proclaims all remaining wells would be removed within 40 years of the New Occupancy Date and that the operation of the pipeline would continue for the life of the project. The comment states a failure to see the advantage of removing old pipelines and replacing them with new ones that will remain forever, and to call it an improvement. The comment expresses a belief that the old pipes and oil wells should be removed, but not replaced with new ones.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, refer to Draft EIR Chapter 2, *Project Description*, p. 2-46, which describes the proposed pipeline corridor, which includes all pipelines and the containment system. The pipeline would be contained within an earthen berm on both sides. The height of the containment berms would be up to approximately 18 inches. Expansion loops or U-shaped bends in the pipeline alignment would be constructed to accommodate potential fault displacement and thermal expansion. The expansion loops are constructed of the same material as the pipeline, and would be approximately 10 feet in height and 10 feet wide, and can be laid either horizontally or vertically. Approximately two expansion loops would be required. The underground utility corridor would be constructed to a depth of approximately 5 feet below ground surface. In the unlikely chance that an adverse event occurs, such as an earthquake, pressure transmitters would be able to detect a pressure imbalance, and shut-off valves located on the Pumpkin Patch and LCWA sites would shut down the flow.

Response 24b-22

The comment quotes a section of the EIR that addresses adverse events. The quote states that in the event of an adverse event, such as an earthquake, pressure regulated shut off-valves would shut down the flow within the pipeline. The comment expresses a discomfort with shut-off valves as the only protective measure for the wetlands in the event of an earthquake, and suggests that the pipeline should not be built in this location, and should be replaced by Alternative 5, the Relocated Pipeline Alternative.

As described in Draft EIR Section 3.5, *Geology, Seismicity, and Soils*, under Impact GEO-1, p. 3.5-3, the proposed pipelines, electrical lines, and control cables that would be constructed across the City Property were evaluated for potential displacement or damage in the event of a seismic event. The study identified seismic design elements to accommodate the anticipated maximum amount of displacement and minimize the damage risk from rupture, which would be incorporated into the project. 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 to be accommodated by sliding on the aboveground supports and accommodate relative axial displacement through flexure of bends in the pipeline. In addition, the pipeline would have stress loops, pressure gauges, automatic shutoff devices, alarms, and valves at specific distances, as required by DOGGR, which would shut the pipeline system 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, which would reduce the potential impact to a less-than-significant level. The Alternative 5 referred to by the comment would still place the pipeline on the City property but at a different location. The same system design components would be used and would be constructed in compliance with DOGGR safety regulations.

Response 24b-23

The comment notes that although the Draft EIR claims there will be no increased impacts from this project with respect to traffic because construction will not occur at peak traffic volumes, they would argue that there are few times at PCH and 2nd or Studebaker and 2nd when traffic is not at a standstill or backed up for blocked. The comment includes a quote from Section 3.15.4.4, Cumulative Impacts, that defines cumulative traffics impacts, and underlines the portion that says “contributes to unacceptable operating conditions on study area roadways”. The comment finally states that this needs mitigation.

The critical period for evaluating potential project impact on the adjacent streets is associated with usual and customary peak periods. Most agencies, including the City of Long Beach, have adopted industry standards for when peak periods are most likely to occur and is the basis for conducting a traffic analysis. Typical peak traffic volumes are usually observed between the hours of 7:00 a.m. to 9:00 a.m. and 4:00 p.m. and 6:00 p.m. when the highest traffic volumes are consistently to be expected on the roadway network. Although there are times outside of the morning and evening peak periods that high traffic volumes could occur, they are for a short duration and typically do not occur on a daily basis or during the same period. These fluctuations in traffic volumes outside of the peak periods cannot be used to adequately determine potential impact.

The construction traffic associated with the phased development of the project is a temporary condition. The City has determined that the associated construction traffic is insignificant and would not affect the operation of the adjacent roadway network. As the construction traffic is not associated with a particular land use and is temporary in nature, the expected traffic volumes would not affect the General Plan build-out. The City also

determined that the proposed warehouse facility trip generation is very low and does not warrant a traffic analysis based on any agency criteria.

Response 24b-24

The comment refers to the proposed water injection technique that is used to combat subsidence, stating that it is also a method used for fracking or “well enhancement,” which requires the use of potable water. The comment notes that since Long Beach obtains half of its water from water wells, that there is concern about contamination of drinking water.

As specified throughout the Draft EIR in the methodology sections (see Draft EIR Section 3.5.4.2, p. 3.5-27; Section 3.7.4.2, pp. 3.7-25 to 3.7-26; and Section 3.8.4.2, p. 3.8-18), the well drilling techniques would not use fracking.

As described in Draft EIR Section 3.8, *Hydrology and Water Quality*, under Impact HY-2, p. 3.8-26, LBWD acquires its groundwater supply from the landward side of the Alamitos Barrier Project; the project sites are on the seaward side of the barrier. Therefore, the oil field operations could not contaminate the public water supply.

Response 24b-25

The comment quotes the impact statement and opening paragraph for construction for Impact HY-2, which states that there is a less-than-significant impact concerning the depletion of groundwater supplies. The comment states the text sounds like a depletion as discussed in their subsequent comments below.

The comment does not raise a substantive issue on the content of the Draft EIR in this paragraph but rather provides an opinion concerning the proposed project groundwater supplies. The comment then provides following paragraph that discusses of their concerns regarding groundwater supplies; the comment is addressed in Response 24b-26.

Response 24b-26

The comment quotes several sections of the Draft EIR pertaining to water supply. The comment then disagrees with the assertion within the Draft EIR that the City of Long Beach will have a surplus of drinking water for the next 60 years, asking why there is a rationing and shortage of water to keep parks green. The comment finally states that California is still in a drought and that water use is a very good reason to deny this project.

The comment does not raise a substantive issue on the content of the Draft EIR, but rather provides the observation of the commenter regarding the proposed project and potable water sources. The comment will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, the Draft EIR provides a discussion of water supplies in Section 3.17, *Utilities and Service Systems*, Impact UT-2, which includes Table 3.17-4, Summary of Projected Annual Water Usage, along with a discussion that 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 year.

Response 24b-27

The comment quotes Impact HY-5, which states that there will be a less-than-significant impact with regards to sea level rise inundation. The comment states that according to recent studies, sea level rise is occurring

much faster than previously anticipated and questions the validity of the outcome determined in Impact HY-5, and believes that new studies on sea level rise are needed.

The results of the sea level rise study are discussed in Draft EIR Section 3.8.4.2, Methodology, which describes the hydraulic modeling conducted to inform the design of the project. Further details of the methodology and results of the hydraulic modeling are presented in Appendix G3, in the 2017 modeling report titled *Updated Sea Level Rise Impact Analyses*. The modeling used a model called the AdH modeling system. This model system is described in the modeling report, along with the justification for using this particular model as opposed to another model called the RMA2 model. The comment does not provide any substantiation regarding the validity of the hydraulic modeling methodology and does not provide any suggested alternate methodology.

Response 24b-28

The comment quotes passages from Draft EIR Section 3.8, *Hydrology and Water Quality*, including Impact HY-6, Impact HY-7, and the cumulative impacts. The comment asserts that the Draft EIR dismisses all of the possible hazards to water quality, including oil drilling, flooding, tsunamis, and sea level rise as less than significant. The comment goes on to state that the preparers of the Draft EIR rely on the present river levees and wetland berms to protect human life, the wetlands, oil wells, and structures, but argues that the recent disasters from Hurricane Harvey in Houston should cause EIR preparers to take a closer look at these issues and provide better mitigation measures.

No potential impacts have been “dismissed.” Each of the potential impacts analyses discussed in Draft EIR Section 3.8, *Hydrology and Water Quality*, under Impact HY-6, Impact HY-7, and the cumulative impacts are supported by the information provided in Section 3.8.2, Environmental Setting, and regulated by the laws, ordinances, regulations, and standards described in Section 3.8.3, Regulatory Framework. In addition to considering current existing conditions, the analyses take future anticipated sea level rise in account, as discussed above in the Response 24b-27. In addition, California is not subject to hurricanes.

Response 24b-29

The comment states that the Draft EIR omitted light and noise impacts on wetland animals, and that this must be addressed in the Final EIR. The comment highlights a study on lighting called “Ecological Consequences of Artificial Night Lighting,” edited by Dr. Travis Longcore of USC.

The effects of lighting are addressed in Section 3.3, *Biological Resources*, under Impact BIO-2. As discussed in Impact BIO-2, 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. Potential construction-related noise impacts to nesting birds are also addressed in Impact BIO-2.

Response 24b-30

The comment states their disagreement with the main purpose of a land swap, which allows Synergy to access a new source of oil, when we should be finding ways to eliminate our reliance on fossil fuels and to use renewable energy. The comment summarizes duration of oil operations and iterates their belief that there is a

better use for the 5 acres at Studebaker Road and 2nd Street than 120-foot-tall drill rigs and 48-foot-high tanks full of explosive oil, and that the oils should be left in the ground.

The comment does not raise a substantive issue on the content of the Draft EIR as it does not relate to physical impacts to be studied under CEQA. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.4.11 Phil Giesen, September 6, 2017

Comment Letter 25

Comment Letter 25

Subject: FW: Comments on Los Cerritos Wetlands Oil Consolidation and Restoration Project DEIR

From: Phil & Sue [<mailto:gasp360@yahoo.com>]

Sent: Wednesday, September 06, 2017 12:09 PM

To: alicee lee <alicestevens1@gmail.com>; Craig Chalfant <Craig.Chalfant@longbeach.gov>

Subject: Re: Comments on Los Cerritos Wetlands Oil Consolidation and Restoration Project DEIR

Alice Lee, Thank you so much for your insightful and thorough report and appeal.
Phil Giesen, LB 350, YWC Democrats, Veterans against war, No fracking LB, Master Gardener Trainer, Audubon Society.

From: alicee lee <alicestevens1@gmail.com>

To: craig.chalfant@longbeach.gov

Sent: Tuesday, September 5, 2017 11:15 PM

Subject: Comments on Los Cerritos Wetlands Oil Consolidation and Restoration Project DEIR

Craig Chalfant, Senior Planner
City of Long Beach Development Services
333 W. Ocean Boulevard, 5th Floor
Long Beach, California 90802
craig.chalfant@longbeach.gov

Dear Mr. Chalfant:

On behalf of Long Beach 350, a local grassroots climate action group and an affiliate of 350.org, I am writing to oppose the Los Cerritos Wetlands Oil Consolidation and Restoration Project upon reading the DEIR. Our group's three main goals are (1) to keep carbon in the ground, (2) help build an equitable carbon-neutral economy, and (3) work with the City to limit emissions exacerbating climate change. Climate change, as you may know, is currently wreaking havoc on our nation's coastlines in the form of "once-in-a-thousand-years" storms. Houston is just beginning to assess the damage caused by Hurricane Harvey, a Category 4 storm that slammed the Texas coastline a week ago, while Puerto Rico and the U.S. Virgin Islands prepare for tomorrow's inevitable destruction of Hurricane Irma, currently classified as a Category 5 storm making its way to Florida.

It shouldn't take such tragedy to understand climate change is real and it is unrelenting. Fossil fuels like gas and oil are primary contributors to greenhouse gas (GHG) emissions, and as stated in Chapter 3: Section 3.6 of the DEIR: "the scientific community agrees that there is a direct link between increased emissions of GHGs and long-term global temperature increases." Long Beach 350 strongly believes the proposed oil consolidation and restoration project will cause unretractable damage to our climate resulting in global harm.

Among the most alarming data found in this DEIR is the estimated net yearly GHG emissions projected for the project. Table 3.6-4 from the DEIR summarizes: "... construction and operation of the proposed project would result in net GHG emissions of approximately 53,642 MTCO2e/year for the first 20 years, 50,955 MTCO2e/year for years 20 through 40, and 48,145 MTCO2e/year for any time after 40 years."

Table 3.6-4, Estimated Net Project Greenhouse Gas (GHG) Emissions, MTCO₂e/year, summarizes the impact the phase out would have on the project's total GHG emissions. As shown in Table 3.6-4, construction and operation of the proposed project would result in net GHG emissions of approximately 53,642 MTCO₂e/year for the first 20 years, 50,955 MTCO₂e/year for years 20 through 40, and 48,145 MTCO₂e/year for any time after 40 years.

Table 3.6-4 Estimated Net Project Greenhouse Gas (GHG) Emissions, MTCO₂e/year

Emission Source	First 20 years	Years 20 to 40	After 40 years
Annualized Construction Emissions ^a	157	157	0
Operational Emissions (stationary sources)	67,581	67,581	67,581
Operational Emissions (other sources) ^b	2,775	2,775	2,775
Total Annualized Emissions	70,513	70,513	70,356
Curtailed Emissions	(16,871)	(19,558)	(22,211)
Net Total Annualized Emissions	53,642	50,955	48,145
GHG Significance Threshold	10,000	10,000	10,000
Exceeds Significance Threshold?	Yes	Yes	Yes

SOURCE: Greve & Associates, 2017.

a. Construction emissions are annualized over 30 years; therefore, after 40 years, these emissions are reported as zero.

b. A portion of these emissions are from motor vehicles, which would decline in future years as vehicles are replaced with newer models that meet more stringent emission standards. Therefore, these emissions represent a conservative estimate for the future years and actual emission would likely be lower.

This means the project would result in just over 1,000,000 MTCO₂e/yr in the first 20 years, that is, 1 MMT of CO₂ emissions, and another 1 MMT of CO₂ in the next 20 years. That would be the same as ADDING an extra 11,000 gas-burning cars every day on the road each year for 40 years! Any wetlands restoration proposed by this project surely would have little positive impact compared to the negative impacts of these GHG emissions. And the benefits of restoration may not be realized for at least 40 years, as opposed to the huge GHG emissions that would begin from Day One.

Whatever the financial rewards may be for the City of Long Beach or Beach Oil Minerals Partners (BOMP) to propose this irresponsible project, it is clearly not worth the social costs that will be incurred, both locally and globally. **We cannot afford to allow any new fossil fuel projects to be developed if we want to do something about climate change.** Our state of California has a legal responsibility to reduce GHG emissions 80% below 1990 levels by 2050, and this project will instead set us back several decades. Going forward with this project would be a mistake that cannot be corrected. Please do not accept this proposed project.

Thank you,
Alice Stevens, organizer
Long Beach 350
4627 E Cervato St.
Long Beach, CA 90815

25-1
(cont.)

Responses to Comment Letter 25

Response 25-1

The comment thanks Alice Lee for her comment on behalf of Long Beach 350 and includes a copy of the comments prepared by Long Beach 350.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Refer to Comment Letters 9a and 9b for responses to comments prepared by Long Beach 350.

9.2.4.12 Gregory Gill, September 6, 2017

Comment Letters 26a and 26b

Subject: FW: Alamitos Bay - Draft EIR for the Los Cerritos Wetlands Oil Consolidation and Restoration Project
Attachments: 170906 LT Chalfant.pdf; ATT00001.htm

From: Yvette Etnire <yetnire@raklaw.com>
Subject: Alamitos Bay - Draft EIR for the Los Cerritos Wetlands Oil Consolidation and Restoration Project
Date: September 6, 2017 at 2:49:32 PM PDT
To: craig.chalfant@longbeach.gov
Cc: Matthew Rips <mrrips@raklaw.com>

Good afternoon Mr. Chalfant,

Attached hereto, please find correspondence from Mr. Gregory Gill on behalf of Alamitos Bay Partnership. A hard copy will follow via U.S. Mail.

Thank you.

Best regards,
Yvette

26a-1

Yvette C. Etnire
Assistant to Matthew A. Rips,
Richard L. August, and
Deborah R. Clark
Russ, August & Kabat
12424 Wilshire Boulevard
12th Floor
Los Angeles, CA 90025
(310) 826-7474
(310) 826-6991 Fax
yetnire@raklaw.com

Comment Letter 26b

ALAMITOS BAY PARTNERSHIP, LLC

September 6, 2017

VIA MAIL AND EMAIL TO craig.chalfant@longbeach.gov

Craig Chalfant
City of Long Beach
Department of Development Services
333 West Ocean Boulevard, 5th Floor
Long Beach, CA 90802

Re: Draft EIR for the Los Cerritos Wetlands Oil Consolidation and Restoration Project

Dear Mr. Chalfant:

On behalf of Alamitos Bay Partnership, LLC (ABP), we submit this comment on the Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) for the Los Cerritos Wetlands Oil Consolidation and Restoration Project. As a neighboring property owner with mineral interests in the Alamitos Bay area, we are supportive of the sort of expanded oil exploration and development in the Seal Beach Oil Field contemplated by the Project.

26b-1

ABP and its subsidiaries are considering their own program of drilling and re-drilling wells on existing and potentially new drill sites, including wells to offset oil and gas drainage resulting from new wells drilled as part of the Project. ABP is keen to ensure that oil and natural gas production is conducted in an environmentally sustainable manner that preserves the availability of mineral resources for all community members in the Seal Beach Oil Field. The Draft EIR, in Section 3.10, concludes that the Project will have no significant impact on the availability of oil and natural gas production. We presume that the City would reach the same no-significant-impact conclusion with respect to any similar project undertaken by ABP. We are anxious to learn more about how the Project's increased efficiency in oil production mitigate or eliminate the impact on continued availability of mineral resources in the area, as such details are not presented in the Draft EIR.

26b-2

We respectfully request that, in considering the Draft EIR, the Department of Development Services take into account the matters identified in this letter. We appreciate your consideration.

Sincerely,



Gregory R. Gill

Member, Alamitos Bay Partnership

2200 W. VALLEY BOULEVARD • ALHAMBRA, CALIFORNIA 91803
TELEPHONE (626) 576-0737 • FAX (626) 576-2211

Responses to Comment Letters 26a and 26b

Response 26a-1

The comment is an email transmittal letter from Mr. Gregory Gill submitting a comment letter as a PDF attachment on behalf of Alamitos Bay Partnership and informing the City that the letter will also be sent by regular mail.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 26b-1

The comment writes on behalf of Alamitos Bay Partnership, a neighboring property owner with mineral interests in the Alamitos Bay area, and supports the expanding of oil operations and development in the Seal Beach Oil Field contemplated by the project.

The comment's support is acknowledged; however, the comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 26b-2

The comment states that the commenter is considering his own program of drilling and re-drilling wells on existing and potentially new drill sites, including wells to offset oil and gas drainage resulting from new wells drilled as part of the project, in an environmentally sustainable manner. The commenter would like to know how the project's increased efficiency in oil production can mitigate or eliminate the impact on continued availability of mineral resources in the area, and come to the conclusion of no significant impact on the availability of oil and natural gas production, as such details are not presented in Draft EIR Section 3.10, *Mineral Resources*.

As explained in Draft EIR Chapter 2, *Project Description*, the objective of the project is to relocate oil production well and associated infrastructure from the Synergy Oil Field and City Property sites to the Pumpkin Patch and LCWA sites. While the actual volume of oil production over the coming decades cannot be precisely estimated, the overall production rate would not be expected to be much different than the historical production rate.

9.2.4.13 Corliss Lee, September 6, 2017

Comment Letters 27a and 27b

Comment Letter 27a

Subject: FW: wetlands land swap
Attachments: wetlands oil drilling ltr.doc

From: corlisslee@aol.com [mailto:corlisslee@aol.com]
Sent: Wednesday, September 06, 2017 11:58 PM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>
Subject: wetlands land swap

Please accept the attached input on this project.

I 27a-1

Comment Letter 27b

TO: craig.chalfant@longbeach.gov,
cc: Planning Staff

Sept 6, 2017

FROM: Corliss Lee 5th district
3072 Knoxville Ave.
Long Beach Ca 90808

RE: Wetlands land swap

I am writing to convey an opinion on the wetlands land swap. The current proposal is to allow drilling on this site. That was not the original intent for use of the property when it was conveyed as settlement for damage done to marine life at San Onofre. At that time, the court ordered that the property was to be used to further the restoration of the estuary of the San Gabriel River.

Allowing this small patch of pristine wetlands to be overrun by the oil industry is in direct opposition to the intent for which it was given. Southern California has precious little left of its original rich biological heritage and what is left needs to be set aside.

"BOMP's oil consolidation project will drill 120 new wells, adding pipelines, water treatment facilities, storage units, and offices, before removing any of its 53 old oil wells in the wetlands. After new oil operations are up and running, BOMP will have up to 40 years to remove old wells, pipelines, storage tanks, and contaminated soil and water." (taken from a fact sheet on this project)

None of the above could possibly be construed to be in accord with the intent when the land was conveyed as a protected wetlands.

I implore those in charge of making the decision on what to do with this small patch of land to have a conscience and operate as a responsible caretaker of our lands. A communities' wealth can only be judged by what it can afford to leave alone. Money isn't everything. Habitat is fragile and once it is gone, it is gone.

Respectfully,

Corliss Lee
5th district
714 401 7063
corlisslee@aol.com

27b-1

27b-2

Responses to Comment Letters 27a and 27b

Response 27a-1

The comment is an email transmittal letter submitting a comment letter as a PDF.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 27b-1

The comment expresses opposition to the land swap, as drilling goes against the original intent of this property when it was conveyed as settlement for damage done to marine life at San Onofre and the court ordered the property to be used to further the restoration of the estuary of the San Gabriel River.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. However, in response to the comment, refer to Response 13a-26, concerning the LCWA site and the San Onofre settlement.

Response 27b-2

The comment requests that the decision-makers act responsibly and reminds them that money isn't everything and that the habitat is fragile and irreplaceable.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, refer to Draft EIR Section 3.3, *Biological Resources*, which provides a thorough evaluation of the potential for the proposed project to result in adverse biological resources impacts related to special-status species, sensitive natural communities, jurisdictional resources, and other protected biological resources. The analysis is based on a review of available biological reports of the project area and vicinity, including site-specific investigations conducted for each of the four individual sites that comprise the proposed project, the relevant regulatory ordinances, and a discussion of the methodology and thresholds used to determine whether the proposed project would result in significant impacts. This section identifies the potential for both project-level and cumulative environmental impacts, as well as feasible mitigation measures that could reduce or avoid the identified impacts. Impacts were determined to be less than significant with implementation of Mitigation Measures BIO-1 through BIO-6.

An estimated 67.33 acres of coastal salt marsh and transitional wetland habitats are proposed for restoration. Therefore, restoration would not significantly destroy wetlands, rather, would provide a net increase in functions and values of wetland habitat on site.

9.2.4.14 Bill Thomas, September 7, 2017

Comment Letter 28

Comment Letter 28

W. I. THOMAS

620 Winslow Ave. Long Beach, CA 90814

September 7, 2017

RE: Los Cerritos Wetlands Oil Consolidation and Restoration Project

To Mayor Robert Garcia

As a Long Time Long Beach Resident who has followed the city of Long Beach grow and improve since the mid 1950s, I would like to be on record encouraging approval of this Wetlands restoration project that will soon be evaluated by the city planning commission.

I have been involved in encouraging improvement in the area previously referred to as SEADIP when in 2010 the city disallowed one property development plan approved by planning commission. I was an active member of the advisory committee as the task began in 2014 to look out to a vision of what was best for the city & residents by 2060 with a new specific development plan.

The Synergy Gas and Oil operations were not part of that plan but was certainly part of the vision looking to 2060. In my opinion this Los Cerritos Wetlands Oil Consolidation and Restoration Project proposed by Synergy Oil and other partners fits perfectly with the new SEASP development guidelines now being finalized.

Large portions of the Los Cerritos Wetlands will be restored and opened to the public, which has always been my vision for the area. Removal of the existing oil operations and consolidation offsite is good for the wetlands and will drastically improve the aesthetics of the area. The tax revenue that will be generated by this project is substantial and will benefit the entire City.

I hope to have the opportunity of sitting on the porch of the wetland's visitor's center, and I know that the public trails will be enjoyed for generations!

The BOMP team has done a good job educating the community about this project, and it has broad support. I urge you to assist in a speedy approval of this project.

Regards,

Bill Thomas



cc Councilwoman Suzie Price

28-1

Responses to Comment Letter 28

Response 28-1

The comment describes the commenter's background and expresses support for the project as it fits perfectly with the new SEASP development guidelines and will restore large portions of the wetlands and open it up to the public. The comment urges a speedy approval.

The comment's support is acknowledged; however, the comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.4.15 Benjamin A. Goldberg, September 8, 2017

Comment Letter 29

Comment Letter 29

From: BENJAMIN GOLDBERG [<mailto:councilman@aol.com>]
Sent: Friday, September 08, 2017 6:44 AM
To: Craig Chalfant <Craig.Chalfant@longbeach.gov>; Suzie Price <Suzie.Price@longbeach.gov>;
Council District 3 <District3@longbeach.gov>; suzie@suzieaprice.com
Subject: Wetlands Restoration Project

September 7, 2017

Re: Los Cerritos Wetlands Oil Consolidation and Restoration Project

Mr. Craig Chalfant:

I have lived in University Park Estates for several decades. Along with living here I have been President of the Association for 6 years and a member of the BOD for over 10 years. Part of the reason we chose to live here is because of its proximity to the Los Cerritos Wetlands. I strongly support restoration of the wetlands and am looking forward to waking along the new public trail overlooking Steamshovel Slough. Additionally, removing the tank farms and most of the pipelines immediately will drastically improve the aesthetics of the area. This has always been a goal of mine from the day I moved in to the neighborhood. Originally I was willing to settle for a "façade" similar to the oil island buildings to just hide the unsightly pipes and tank farm. I'm thrilled to see these unsightly items removed and replaced with a much more aesthetically pleasing project. This project represents many environmental benefits and it also provides a substantial revenue increase to the City of Long Beach.

This project is a win-win for the City, its residents and the environment.

Benjamin A. Goldberg
University Park Estates Resident
6300 E Vermont Street
Long Beach, CA 90803
Cc: Councilperson Suzie Price

BENJAMIN GOLDBERG councilman@aol.com

29-1

Responses to Comment Letter 29

Response 29-1

The comment states that the commenter is a resident who supports the project, as it will restore the wetlands, open it up to the public, remove tank farms and pipelines that will improve the aesthetics of the area, and includes environmental benefits as well as revenue for the City.

The comment's support is acknowledged; however, the comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

9.2.4.16 Suzie Price, September 9, 2017

Comment Letter 30

Comment Letter 30

Subject: FW: Wetlands Restoration Project

From: Suzie Price
Sent: Saturday, September 09, 2017 8:50 PM
To: BENJAMIN GOLDBERG <councilman@aol.com>
Cc: Craig Chalfant <Craig.Chalfant@longbeach.gov>; Council District 3 <District3@longbeach.gov>; suzie@suzieaprice.com
Subject: Re: Wetlands Restoration Project

Ben, thank you for this email. Your support of the project is noted and appreciated.

Suzie

Sincerely,
Suzie Price
Councilwoman, 3rd District
Office: 562.570-6300 | Field: 562.570-8756 | Fax: 562.570-6186
Website: www.suzieaprice.com

On Sep 8, 2017, at 6:43 AM, BENJAMIN GOLDBERG <councilman@aol.com> wrote:

September 7, 2017

Re: Los Cerritos Wetlands Oil Consolidation and Restoration Project

Mr. Craig Chalfant:

I have lived in University Park Estates for several decades. Along with living here I have been President of the Association for 6 years and a member of the BOD for over 10 years. Part of the reason we chose to live here is because of its proximity to the Los Cerritos Wetlands. I strongly support restoration of the wetlands and am looking forward to waking along the new public trail overlooking Steamshovel Slough. Additionally, removing the tank farms and most of the pipelines immediately will drastically improve the aesthetics of the area. This has always been a goal of mine from the day I moved in to the neighborhood. Originally I was willing to settle for a "façade" similar to

the oil island buildings to just hide the unsightly pipes and tank farm. I'm thrilled to see these unsightly items removed and replaced with a much more aesthetically pleasing project.

This project represents many environmental benefits and it also provides a substantial revenue increase to the City of Long Beach.

This project is a win-win for the City, its residents and the environment.

Benjamin A. Goldberg
University Park Estates Resident
6300 E Vermont Street
Long Beach, CA 90803
Cc: Councilperson Suzie Price

BENJAMIN GOLDBERG councilman@aol.com

30-1
(cont.)

Responses to Comment Letter 30

Response 30-1

The comment thanks Benjamin A. Goldberg for his comment letter and includes a copy of the comments prepared by Benjamin A. Goldberg.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Refer to Comment Letters 29 for responses to comments prepared by Benjamin A. Goldberg.

9.2.5 Public Hearing

Oral comments received during the public hearing on the Draft EIR and the Lead Agency's responses to those comments are included on the following pages.

9.2.5.1 Warren Blesofsky (Long Beach Citizens for Fair Development), Anne Cantrell, Mary Parsell (El Dorado Audubon), Elizabeth Lambe (Los Cerritos Wetland Land Trust), August 17, 2017, Study Session

Comment Letter 31

Comment Letter 31



City of Long Beach
Working Together to Serve

Memorandum

Date: July 20, 2017
To: Craig Chalfant, Senior Planner
From: Christopher Koontz, Advance Planning Officer
Subject: Planning Commission Study Session for Los Cerritos Wetlands Restoration and Oil Consolidation Project

On August 17, 2017 the Planning Commission conducted a study session regarding the Los Cerritos Wetlands Restoration and Oil Consolidation Project (aka the "BOMP" project). The purpose of this memo is to summarize that study session and elucidate any relevant comments for response in the Environmental Impact Report (EIR).

The study-session began with a staff presentation, a copy of which is attached to this memo.

Commissioner Lewis then asked regarding the purpose of the office building on the pumpkin patch and its purpose, staff clarified that the office building was for oil operations not for outside tenants.

Commissioner Lewis also asked about the role of LCWA in the project, staff clarified the role of the City and LCWA, the land-swap involved in the project and the role of LCWA in managing future wetlands and visitor activities at the "Synergy" site.

Commissioner Perez complimented the applicant on the outreach progress and approach.

Public testimony commenced:

Warren Blesofsky, Long Beach Citizens for Fair Development, noted this is an oil extraction project and claimed staff was misleading the commission. The speaker noted the 40-year restoration period compared to new drilling on the pumpkin patch, with overlapping drilling on both parcels, the pipeline is for the economic benefit of the owner, therefore the 6-8 pipelines lay on the ground across a fault line, which does not sound like a good idea. All of the parcels are in the Los Cerritos Wetlands Complex and does not sound like a good idea. This does not conform to Coastal policy, Coastal zone, Coastal Act. California is schizophrenic about emissions, powerplants and zero emissions, there should be an alternative #6 to ban oil operations within these wetlands. The zoning is being changed to allow 60' of carbon based fuels, oil. We should ask about the amount of oil to be extracted, think about the money \$50 a barrel, its going up, is there another way to come up with the money and pay the oilmen to go away. Volvo is



City of Long Beach
Working Together to Serve

Memorandum

stopping making combustion engines. Give these people their money, restore the wetlands, don't have 40 years of oil operations, they are fracking, disclose the fracking chemicals.

31-6
(cont.)

Anne Cantrell, the reason there has not been public opposition to this land swap and EIR is people have been busy with the General Plan, we have not had time to look at this Draft EIR. I have been involved in the Los Cerritos Wetlands and Land Trust for many years. We have fought for restoration of the wetlands, what I would like to see is yes remove the drilling (from the Synergy property) but do not add more drilling in other places where there is none. The 5-acres at 2nd/Studebaker was a Earthcore holding, a settlement from San Onofre, deeded to them by Edison, when Don May left Long Beach he gave that land to the LCWA with the understanding that it would be used as a wetland to benefit the wetlands, his dream was to have the visitor center in that location. The LCWA sees it another way, as a means of getting restoration done at other wetlands, I do not think this is the way to do it with more drilling and more pipelines.

31-7

31-8

Mary Parsell, El Dorado Audobon, our mission is conservation of native birds, habitat and education. I want to see Los Cerritos Wetlands is important, IBA important bird area, northernmost section of orange coast wetlands, previously owned by Bixby. Our focus is on conservation, protect avian and bird life. We are in danger of losing it to death. Least terns and other wildlife are there, blackneck stilt, herons and egrets, the slough is small compared to other parts of the orange coast wetlands. Access should be monitored and limited, stay on the trail. Come to our scheduled walks, monthly on the marsh and in Seal Beach. We have met with Synergy and BOMP. This is of interest to a lot of people.

31-9

Elizabeth Lambe, Los Cerritos Wetland Land Trust, we aren't here to comment on Specifics because the draft has only been out for a short period of time. We have to read the EIR to understand the project which is what we are doing now. We commend the project proponents for their outreach and dialogue. Some items concern us others we are very optimistic about. The outreach has been positive and we look forward to continued dialogue.

31-10

Chairperson Van Horik closed the Study Session.

Responses to Comment Letter 31

Response 31-1

The comment is a summary of the August 17, 2017, Planning Commission study session, and the questions presented by the Planning Commissioners to staff regarding the project, and the responses provided by staff to those questions.

Response 31-2

Commenter Warren Blesofsky, on behalf of Long Beach Citizens for Fair Development, commented that this is an oil extraction project and not a restoration plan, and that City staff is misleading the Planning Commission. The commenter states that restoration would occur over a 40-year period compared to new drilling on the Pumpkin Patch site.

Refer to Response 11b-1 for a discussion on the proposed project as a wetlands restoration plan and an oil consolidation plan. The wetlands restoration component of the project would occur in the first two years of the project on the Synergy Oil Field site and not in 40 years as the commenter states. See Draft EIR Chapter 2, *Project Description*, pp. 2-27 to 2-42, and Table 2-2 for a timeline of project activities. Once the physical grading and planting work of the wetlands restoration has been completed, the project will initiate a 5-year monitoring and maintenance program for the restored wetlands. Thus, restoration of the wetlands will occur immediately and the restored wetlands should be fully functional within 7 years from the start of construction. The 40-year timeframe mentioned by the commenter pertains to the phase out of the existing oil wells which will occur over that time period with 50 percent of the existing wells phased out in 20 years from the date of occupancy of the new office building, and the remaining 50 percent phased out by the 40th year after the date of occupancy of the new office building. Construction of the new wells will begin in Year 2 and extend over a number of years, but the wetlands will be restored well in advance of when drilling of all of the new wells is completed.

Response 31-3

Commenter Warren Blesofsky is concerned that the pipeline that connects the Pumpkin Patch and LCWA sites is for the economic benefit of the owner instead of having processing facilities on both sites, and that the crossing of the fault line is not a good idea.

Refer to Response 11b-4 for a discussion of the pipeline that connects the Pumpkin Patch and LCWA sites and its placement across a fault line. As described therein, the Applicant conducted a study to identify 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 impacts of eliminating the pipeline were evaluated in Draft EIR Chapter 5, *Alternatives*, in Subsection 5.3.5, No Pipeline Alternative, p. 5-5. As described therein, the No Pipeline Alternative considers the elimination of the pipeline; however, this alternative would generate additional impacts beyond those identified for the project and, therefore, because of the additional impacts and questionable feasibility, this alternative was rejected. Without the pipeline, the Pumpkin Patch oil facilities would have to be redesigned to accommodate a larger storage tank and its own production facilities instead of sharing facilities as proposed by the project. This would require additional space, particularly on the Pumpkin Patch site, and would require

development of the entire 7 acres, instead of just 5 acres, and would have greater impacts on the habitat that the project avoids on the Pumpkin Patch site. Further, the produced oil would have to be trucked off site, thereby increasing traffic impacts, which in turn would impact air quality and noise. Because additional impacts would result from eliminating the pipeline, the project with a pipeline connecting the two sites was proposed for the project design. Although the pipeline does cross the fault line, the potential impacts were addressed and mitigated and were determined to be less than significant.

Response 31-4

Commenter Warren Blesofsky stated that the parcels are in the Los Cerritos Wetlands Complex and does not conform to Coastal policy, Coastal zone, Coastal Act.

Refer to Responses 11b-17 and 11b-20 for a discussion on consistency with the policies contained within the Coastal Act. Furthermore, consideration of Coastal Act policies was included as part of the analysis in Draft EIR Section 3.9, *Land Use and Planning*. See Draft EIR Table 3.9-1, Consistency with Local Land Use Plans, p. 3.9-19, which identifies Coastal Act policies and the project's consistency with those policies.

Response 31-5

Commenter Warren Blesofsky states that California is schizophrenic about emissions and oil, and there should be another alternative considered that bans oil operations within wetlands.

The comment expresses the opinion of the commenter, and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Nevertheless, in response to the comment, CEQA requires that a reasonable range of alternatives be considered in an EIR that could feasibly accomplish most of the basic objectives of the project (14 Cal. Code of Regulations Section 15126.6(c)). Banning all oil production would not accomplish any of the project objectives and, therefore, is not a feasible alternative.

Response 31-6

Commenter Warren Blesofsky noted that the zoning is being changed to allow structures 60 feet high. The commenter asks about the amount of oil that will be extracted and the amount of money and whether we should find money to pay the oil operators to go away. The commenter also states that they are fracking and should disclose fracking chemicals.

The project is proposing an amendment to clarify the allowable height for oil production and storage facilities. Therefore, the increase in height would only apply to oil tanks—similar to those already existing on the adjacent AES and Plains sites—and would not provide for a blanket increase in heights for all structures. With respect to the suggestion to find money to pay the oil operators to go away, the comment expresses the opinion of the commenter, and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. In response to the comment regarding fracking, the project is not proposing any fracking activities.

Response 31-7

Commenter Anne Cantrell stated her concern that an insufficient amount of time had been provided to review the Draft EIR.

In compliance with CEQA, the Draft EIR review period was 44 days. The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

Response 31-8

Commenter Anne Cantrell would prefer the removal of all oil extraction operations from the Synergy Oil Field site with no replacement on any other sites. In addition, the commenter states that the LCWA site was originally intended to be used as a wetland and a visitors center.

The comment expresses the opinion of the commenter, and does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration. Refer to Response 31-5 for a discussion on removing all oil operations. In addition, refer to Response 11b-11 for a discussion of the history detailing the LCWA land swap.

Response 31-9

Commenter Mary Parsell from El Dorado Audubon requested that access to the restored wetlands be monitored and limited.

Refer to Responses 10b-4, 10b-6, 10b-7, and 10b-28 for a discussion of access to Steamshovel Slough and the wetlands in the northern portion of the Synergy Oil Field site. As described, access would be limited to the visitors center and specific trails. In addition, trail use would be limited to docent-led use only.

Response 31-10

Commenter Elizabeth Lambe of the Los Cerritos Wetland Land Trust stated that they had yet to read the Draft EIR and were not going to comment on the specifics of the Draft EIR. They commended the Applicant for their outreach and dialogue and look forward to continued dialogue.

The comment does not raise a substantive issue on the content of the Draft EIR. It will be included in the administrative record and will be provided to City decision-makers for consideration.

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