

Analysis of Alternatives

6.1 Introduction

This chapter presents a comparison of alternatives to the proposed Project and evaluates their potential impacts. Section 15126.6 of the State CEQA Guidelines requires that an “EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, that would feasibly attain most of the basic objectives of the project, which would avoid or substantially lessen any of the significant effects of the project.” Potential alternatives are identified in Section 6.2. As required by CEQA, the No Project Alternative is included as one of the alternatives. Section 6.3 identifies why an alternative location within in the Port was considered but was eliminated. Section 6.4 compares the selected alternatives against each other and the proposed Project.

Alternatives in this Draft EIR have been analyzed at a level that provides sufficient information about the environmental effects of each alternative for comparative purposes and to allow for informed decision-making.

6.2 Project Alternatives

6.2.1 Requirements for Alternatives

The range of alternatives required by CEQA for an EIR is governed by a “rule of reason” that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice. An EIR need not consider every conceivable alternative to a project. Rather, the alternatives must be limited to alternatives that will feasibly attain most of the basic project objectives, are potentially feasible, and would avoid or substantially lessen at least one of the significant environmental effects of the project. (State CEQA Guidelines, Section 15126.6[f]). The EIR must also identify the environmentally superior alternative, which cannot be the No Project Alternative. Alternatives can be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid or substantially lessen any significant environmental effects (State CEQA Guidelines, Section 15126.6[c]).

6.2.2 Alternatives Considered

This EIR presents a reasonable range of alternatives pursuant to CEQA. LAHD defines a reasonable range of alternatives in light of its legal mandates under the Port of Los Angeles Tidelands Trust (Los Angeles City Charter, Article VI, Sec. 601), the California Coastal Act (20 PRC 30700 et seq.), and LAHD's leasing policy. The Port is one of only five locations in the state identified in the California Coastal Act for the purposes of international maritime commerce (20 PRC 30700–30701). These mandates identify the Port and its facilities as a primary economic/coastal resource of the state and an essential element of the national maritime industry for promotion of commerce, navigation, fisheries, environmental preservation, and public recreation. The primary objective of the proposed Project is to comply with MOTEMS, a state mandated requirement.

The proposed Project's objectives (listed below) form the basis for developing potential alternatives.

- Comply with MOTEMS requirements, which would ensure better resistance to earthquakes, protect the public and the environment, and reduce the potential of an oil spill, and consequently maintain the operation and viability of the marine oil facility (primary objective).
- Optimize the use of existing land at the terminal and associated waterways in a manner that is consistent with the LAHD's public trust obligations.
- Continue operations which contribute to Southern California's energy needs given evolving market conditions and business cycle variability.
- Maintain the existing facility's throughput capabilities and operational parameters.
- Comply with the LAHD's Source Control Program (SCP).

Two alternatives—the No Project Alternative and a Reduced Project Alternative—are analyzed in this Draft EIR.

Under CEQA, the analysis of alternatives need not be as in-depth as the analysis for the proposed Project, but should be at a level that allows the decision-makers to make an informed determination regarding the differences in impacts between the proposed Project and each of its alternatives.

6.2.2.1 Alternative 1– No Project

The No Project Alternative required by CEQA represents what would reasonably be expected to occur in the foreseeable future if the proposed Project were not approved. Under this alternative, the existing marine oil terminal would not be compliant with MOTEMS requirements. The current terminal lease expires in 2023. At that time, operations would cease. This location would then be available for use consistent with its zoning (heavy industrial uses) and the Port Master Plan's designated land use (liquid bulk facility). Any subsequent use of the site, once identified, would be subject to additional environmental review.

6.2.2.1.1 Alternative 1 Objectives Analysis

Alternative 1 would not meet the primary objective of complying with MOTEMS requirements. This alternative would also not meet the objective of optimizing land use at the terminal in a manner that is consistent with LAHD's public trust obligations because it would result in the elimination of an operating marine oil terminal. Alternative 1 would allow the tenant, Shell Oil Company, to continue to use this facility and supply petroleum products until their lease expires in 2023. However, terminal operations would cease in 2023, and from that point on, the terminal would no longer contribute to meeting the energy demands of Southern California. Alternative 1 would also not comply with the LAHD's SCP requirements for tanks and secondary containment, as there would be no mechanism for implementing such improvements (e.g., a new lease).

6.2.2.2 Alternative 2 – Reduced Project – One Platform

Under Alternative 2, only Berth 168 would be improved to meet MOTEMS compliance, including piping replacement and related support structures, and the SCP would be implemented. Berth 169 would become non-operational once construction of Berth 168 is complete. As with the proposed Project, the soonest construction of Berth 168 could begin in 2018 and would occur over a three-year period. Alternative 2 would include a vapor control system to allow for the loading of refined products onto vessels. A new 30-year lease would be issued and the terminal would continue to operate as a fully functional marine oil terminal using one berth (Berth 168) through 2048. Similar to the proposed Project, this reduced platform alternative would generally be capable of accommodating the anticipated future throughput (i.e., approximately 25.5 million barrels and 166 vessel calls annually).

The second berth, which would be operational for the proposed Project but not Alternative 2, would provide Shell with business flexibility and options needed to minimize potential business interruptions. One berth would operate less efficiently than the proposed Project since it would not allow for undisrupted terminal operation if one berth becomes temporarily inoperable.

6.2.2.2.1 Alternative 2 Objectives Analysis

Alternative 2 would satisfy the Project objectives, although, for some objectives, to a lesser degree than the proposed Project. Alternative 2 would meet the primary objective of complying with MOTEMS requirements. However, only one berth would be improved while the other would become non-operational. Therefore, Alternative 2 would meet the objectives of continuing to use the land at the terminal and associated waterways in a manner that is consistent with LAHD's public trust obligations while allowing operations designed to meet Southern California's energy needs. One berth would operate less efficiently than the proposed Project since it would not allow for undisrupted terminal operation if one berth becomes temporarily inoperable. Alternative 2 allows for less operational flexibility and does not meet the third Project objective as well as the proposed Project.

6.3 Alternatives Considered but Eliminated

As discussed above, CEQA requires an EIR to present a range of reasonable alternatives to the proposed Project. CEQA also requires an evaluation of the comparative merits of the alternatives. An EIR is not required to consider alternatives that would be infeasible or that would not reduce any identified significant impact.

Selecting an alternative site within the Port was considered but eliminated from further analysis due to infeasibility. The Project site is an existing marine oil terminal that has operated at this location since 1923. The proposed Project is needed to upgrade the site so that it would comply with MOTEMS. Therefore, no other sites were considered feasible for the proposed Project.

6.4 Analysis of Alternatives

Chapter 3 of this Draft EIR evaluates the proposed Project's potential impacts on five environmental resources areas (Air Quality and Meteorology, Biological Resources, Greenhouse Gas [GHG] Emissions and Climate Change, Hazards, and Energy Conservation). The No Project Alternative (Alternative 1) and the Reduced Project Alternative (Alternative 2) are evaluated below.

6.4.1 Summary of Alternatives Impacts Analysis

Table 6-1 presents a summary of the resource area impacts associated with the proposed Project and each alternative.

No construction would be undertaken as part of Alternative 1 so there would be no impacts related to construction. Alternative 1 would not result in a significant and unavoidable impact relative to GHG emissions as a result of the cessation of terminal operations in 2023. However, because of operational activity increases through 2023 that would occur even without the proposed Project, Alternative 1 would still have significant and unavoidable impacts in the areas of air quality. As with the proposed Project, biological resources, hazards, and energy conservation would be less than significant.

Alternative 2 would have less construction emissions but would accommodate a similar level of operations as that of the proposed Project. Therefore, Alternative 2 would also have significant and unavoidable impacts in the same areas as those for the proposed Project (air quality and GHG emissions) but the emissions associated with construction would be less due to a single berth construction. Similar to the proposed Project, biological resources, hazards, and energy conservation would be less than significant.

As shown in Table 6-1, Alternative 1 (the No Project Alternative) would have fewer significant impacts than the proposed Project or Alternative 2. As discussed in Section 6.4.2, Alternative 2 (the Reduced Project) would have similar but slightly reduced construction impacts than would occur under the proposed Project.

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Table 6-1: Impacts Summary by Alternative

Environmental Resource Area*	Proposed Project	Alt 1	Alt 2
Air Quality			
Construction	S	N	S
Operation	S	S	S
Health Risk	L	L	L
Biological Resources			
Construction	M	L	M
Operation	L	L	L
Greenhouse Gas Emissions and Climate Change			
Construction and Operation	S	L	S
Hazards			
Construction	L	N	L
Operation	L	L	L
Energy Conservation			
Construction and Operation	L	L	L

Notes:

* The analysis includes project-level impacts, not cumulative effects.

S = Unavoidable significant impact

M = Significant but mitigatable impact (not significant with mitigation)

L = Less than significant impact (not significant without mitigation)

N = No impact

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3 **6.4.2 Resources with Significant Impacts**

4 The proposed Project would result in significant impacts in the areas of Air Quality and
 5 Meteorology and GHG’s. The following is an analysis for each alternative.

6 **6.4.2.1 Air Quality and Meteorology**

7 **6.4.2.1.1 Alternative 1 – No Project**

8 Under Alternative 1, no new construction of terminal improvements would occur.
 9 Therefore, there would be no construction-related impacts. Terminal operations would
 10 continue until the current lease expires in 2023.

11 Terminal operations are assumed to grow at an annual rate of two percent and reach
 12 approximately 15.5 million barrels and 101 vessel calls by 2023. This would result in an
 13 increase in annual air emissions through 2023. This would occur without implementation
 14 of the proposed Project. However, when the terminal lease expires, operations would
 15 cease and existing operational emissions would no longer occur. Any subsequent use of
 16 the site was not evaluated in this EIR; once identified, it would be subject to additional
 17 environmental review. During operations, impacts would be expected to be significant
 18 and unavoidable similar to the proposed Project (peak day NOx and VOC emissions
 19 would be significant).

1 Similar to the proposed Project, operation of Alternative 1 would not result in an
2 exceedance of ambient air quality thresholds (see Appendix B2). Alternative 1 would not
3 result in significant cancer risk, population cancer burden, or non-cancer risks (see
4 Appendix B3).

5 Under the proposed Project, air emissions would occur over a longer period (from 2019
6 through 2048) than Alternative 1. Therefore, Alternative 1 would have a reduced impact
7 on air quality emissions compared to the proposed Project. No mitigation is available
8 under Alternative 1, as there would be no new or amended lease through which to require
9 mitigation.

10 **6.4.2.1.2 Alternative 2 – Reduced Project**

11 Under Alternative 2 only Berth 168 would be improved. Berth 169 would become non-
12 operational once construction of Berth 168 is complete. Thus, while peak day
13 construction emissions would be the same as the proposed Project in the first three years
14 of construction, construction would occur over a shorter time period. Therefore, total
15 construction emissions would be reduced as compared to the proposed Project. Although
16 reduced compared to the proposed Project, construction impacts would still remain
17 significant for NO_x, VOC, and PM_{2.5} (during overlapping construction/operation) even
18 after implementation of mitigation measures (MM AQ-1 through MM AQ-4). Similar to
19 the proposed Project, construction of Alternative 2 would result in exceedances of the
20 ambient air quality thresholds for federal and state 1-hour NO₂ concentrations (see
21 Appendix B2). With application of mitigation measures MM AQ-1 through MM AQ-4,
22 the federal and state 1-hour NO₂ concentrations would continue to exceed the thresholds
23 during construction.

24 Operationally, Alternative 2 would be capable of accommodating the same anticipated
25 future throughput as the proposed Project (i.e., approximately 25.5 million barrels and
26 166 vessel calls annually). Therefore, annual air emissions would be similar to the
27 proposed Project. Peak daily operational emissions would also be similar for both
28 Alternative 2 and the proposed Project (see Table 3.1-23 in Section 3.1, Air Quality and
29 Meteorology for peak daily operational emission associated with the proposed Project).
30 Therefore, operational emissions associated with Alternative 2 would also be significant
31 and unavoidable for NO_x and VOC after implementation of mitigation (MM AQ-5).

32 Similar to the proposed Project, operation of Alternative 2 would not result in an
33 exceedance of ambient air quality thresholds (see Appendix B2). Alternative 2 would not
34 result in significant cancer risk, population cancer burden, or non-cancer risks (see
35 Appendix B3).

36 **6.4.2.2 Greenhouse Gas Emissions and Climate Change**

37 **6.4.2.2.1 Alternative 1 – No Project**

38 Under Alternative 1, no new construction activities would occur. Operations would
39 continue until 2023. Terminal operations are assumed to grow at an annual rate of two
40 percent and reach approximately 15.5 million barrels and 101 vessel calls annually when
41 the existing terminal lease expires in 2023 (see Appendix B2). This would result in an
42 associated increase in annual greenhouse emissions. However, emissions would not
43 exceed the GHG threshold of 10,000 mty prior to 2023. Therefore, GHG impacts under
44 Alternative 1 would be less than significant, and reduced compared to the proposed
45 Project.

6.4.2.2.2 Alternative 2 – Reduced Project

As with the proposed Project, vessel emissions for all source categories would increase over time because of terminal throughput increases. As the throughput would be similar under Alternative 2 as with the proposed Project, Alternative 2 GHG emissions would be significant by 2048 (when 139 vessel calls are reached annually) prior to mitigation (see Table 3.3-3 in Section 3.3, Greenhouse Gas Emissions and Climate Change, for the proposed Project’s GHG emissions before mitigation). With implementation of air quality mitigation measure MM-AQ-5 and lease measures (LM AQ-1 and LM GHG-1), GHG emission impacts would be reduced, but would remain significant and unavoidable (see Table 3.3-4 in Section 3.3 for the GHG emissions after mitigation associated with the proposed Project).

6.5 Environmentally Superior Alternatives

CEQA requires identification of an environmentally superior alternative. The No Project Alternative (Alternative 1) is the Environmentally Superior Alternative because it would have reduced impacts in all four resource areas. However, none of the proposed Project objectives, including the primary objective of compliance with MOTEMS requirements would be met (see Section 6.3). State CEQA Guidelines Section 15126.6(e)(2) requires that in cases where the No Project Alternative is determined to be the environmentally superior alternative, another alternative must also be identified as environmentally superior.

Under Alternative 2, only one berth would be upgraded and thus less construction and construction-related impacts would occur, relative to the proposed Project. Terminal throughput would be the same as the proposed Project. Consequently, under Alternative 2, impacts in the area of air quality and GHG’s would be slightly reduced as compared to the proposed Project due to slightly less construction (only one loading platform would be constructed under Alternative 1 compared to two platforms under the proposed Project). Due to the slightly reduced impacts to air quality and GHG emissions (as described above in Sections 6.4.2.1.2 and 6.4.2.3.2, respectively), Alternative 2 is also deemed to be environmentally superior.

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