5.0 Alternatives

The California Environmental Quality Act (CEQA), Section 15126.6, requires an Environmental Impact Report (EIR) to describe a reasonable range of alternatives to a project or to the location of a project which could feasibly attain its basic objectives and evaluate the comparative merits of the alternatives. This section discusses a range of alternatives to the Project, including the "No Project" alternative. Criteria used to evaluate the range of alternatives and remove certain alternatives from further consideration are addressed. State CEQA Guidelines Section 15126.6 provides direction for the discussion of alternatives to the Project. This section requires:

> A description of "*...a range of reasonable alternatives to the project, or to the location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives*" [15126.6(a)].
>
> A setting forth of alternatives that "*...shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of 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*" [15126.6(f)].
>
> A discussion of the "No Project" alternative, and *"...If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives*" [15126.6(e)(2)], even if the Project is the next environmentally preferable option.
>
> A discussion and analysis of alternative locations "…*that would substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR*" [15126.6(f)(2)(B)].

The EIR must explain the rationale for selecting the alternatives to be discussed, identify those that were not considered because they were infeasible, and briefly explain why any alternatives were rejected. An EIR is not required to consider alternatives that are not feasible. The "environmentally superior" alternative to the Project must be identified and discussed. If the environmentally superior alternative is the No Project Alternative, the EIR must identify an additional "environmentally superior" choice among the other Project alternatives.

Alternatives must meet most of the Project objectives, including addressing the "underlying purpose of the project" (CEQA Guidelines 15124). In addition, an EIR should not exclude an alternative from detailed consideration merely because it would impede to some degree the attainment of the project objectives. An EIR should define the alternative analysis around a reasonable definition of "underlying purpose" and need not study alternatives that cannot achieve that basic goal.

In defining feasibility of alternatives, and pursuant to the CEQA Guidelines, the following considerations were taken into account: site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent) [CEQA Guidelines Section 15126.6(f)(1)].

This document has used an alternative screening analysis to select the alternatives evaluated in detail in the EIR. The alternative screening analysis provides a detailed explanation of why some of the alternatives were rejected from further analysis and assures that only the environmentally preferred alternatives are evaluated and compared in the EIR.

This screening methodology also uses the *"rule of reason"* approach to alternatives as discussed in State CEQA Guidelines (Section 15126.6(f)). The rule of reason approach has been defined to require that EIRs address a range of feasible alternatives that have the potential to diminish or avoid adverse environmental impacts. The State CEQA Guidelines state:

> *The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effect of the project. Of 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. (Section 15126.6(f))*

In defining feasibility of alternatives, the State CEQA Guidelines state:

> *Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (Section 15126.6(f)(1)).*

If an alternative was found to be technically infeasible, then it was dropped from further consideration. This was the primary feasibility factor that was used to eliminate an alternative without further screening analysis. In addition, CEQA states that alternatives should "…*attain most of the basic objectives of the project* ..." (Section 15126.6(a)). If an alternative was found to not attain most of the basic objectives, then it was also eliminated.

Given the CEQA mandates listed above, the remainder of this chapter covers: (1) a brief description of a range of reasonable alternatives to the Project; (2) an environmental analysis of the alternatives that were selected for further consideration in the EIR; and (3) a comparison of the alternatives with the Project and a discussion of the environmentally superior alternative for the Project. There is also a discussion of the potential beneficial impacts of the Project due to the proposed demolition activities.

5.1 Summary Description of Alternatives

A screening analysis considered a variety of alternatives to the Project. The alternatives initially evaluated include the following:

- No Project Alternative;
- Full Removal of Facilities Alternative;
- Removal of Offshore Facilities Alternative;
- Additional Remediation and Cleanup Alternative;
- Conservative Removal Alternative;
- Limitations on Trucking Destinations Alternative;
- Other Project Locations Alternative; and
- Reduced Remediation Alternative.

The following sections summarize these alternatives. A more detailed description is included in Section 5.2 for those alternatives carried forward to the environmentally superior alternative analysis.

5.1.1 No Project Alternative

CEQA requires an evaluation of the No Project Alternative so that decision makers can compare the impacts of approving the Project with the impacts of not approving the Project. According to CEQA Guidelines §15126.6(3)(B), for a development project the No Project Alternative is the circumstances under which the Project does not proceed. If disapproval of the Project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed. CEQA defines the "no project" as:

> *[W]hat would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (15126.6).*

Under the No Project Alternative, the foreseeable action would be not conducting the site demolition activities proposed by the Project. The Santa Maria Refinery (SMR) would remain at the site in a shut-down status and would not process crude oil for shipment to the Bay Area Rodeo Refinery.

As CEQA also assumes that regulatory schemes would be applicable, the remediation of contaminated soils and groundwater as required by the Central Coast Regional Water Quality Control Board (Central Coast Water Board) would still occur.

Because CEQA requires that the No Project Alternative be analyzed in the EIR, it has been retained for full analysis in this section. More details are provided in Section 5.2.1 below.

5.1.2 Full Removal of Facilities Alternative

As discussed in Chapter 2.0, Project Description, a number of facilities are proposed to remain in place for potential future use (surface hardscape, rail spurs, truck scale, wastewater outfall pipeline, etc.). Under this alternative, all facilities would be removed except those associated with Central Coast Water Board cleanup actions currently ongoing, which would include the following facilities:

- Groundwater monitoring wells; and
- The Slop Oil Line Release water remediation equipment and other remediation equipment that may be need as required by the Central Coast Water Board.

All other facilities would be removed as part of this alternative.

Because full removal may provide some environmental benefits, retaining this alternative for detailed analysis provides full disclosure to the public and is warranted. As per CEQA, the inclusion of this alternative "will foster informed decision making and public participation" (15126.6) and therefore this alternative has been retained for further analysis in this section. More details are provided in Section 5.2.2 below.

5.1.3 Removal of Offshore Facilities Alternative

As discussed in Chapter 2.0, Project Description, a number of facilities are proposed to remain in place for potential future use (surface hardscape, rail spurs, truck scale, wastewater outfall pipeline, etc.). Under this alternative, all of the facilities as proposed in the Project would remain except for the wastewater outfall pipeline, which would be removed. The wastewater outfall line is currently under a lease to the California State Lands Commission (CSLC) which expires in 2028. It is subject to a number of stipulations and requirements in the lease (see Appendix A). The outfall is also located in an area that has potentially been designated for the Chumash Heritage National Marine Sanctuary area, extending from Point Arguello to Cambria (https://chumashsanctuary.org) which, if implemented, may require permits from NOAA for removal as well. For full disclosure, this alternative has been retained for further analysis. More details are provided in Section 5.2.3 below.

5.1.4 Additional Remediation and Cleanup Alternative

The Project proposes to remediate the site to industrial standards. Under this alternative, the site would be remediated to different, higher standards than requirements for Industrial land uses, upon approval from the Central Coast Water Board. Because a higher standard of remediation and cleanup could provide some environmental benefits and/or produce greater impacts (more truck trips, etc.) and full disclosure to the public is warranted, this alternative has been retained for further analysis in this section. More details are provided in Section 5.2.4 below.

5.1.5 Limitations on Trucking Destinations Alternative

The Project proposes to transport materials to potentially different locations depending on the receiving facilities' ability to accept those materials, their associated capacity, and other factors, such as economics. Different routes may have different potential impacts associated with traffic impacts, noise to nearby residences, or other issues. This alternative would limit the destinations to only those that have the least potential impacts.

As CEQA impacts related to traffic are based only on vehicle miles traveled (VMT), and not necessarily potential congestion issues, and because Project-related vehicle miles would be substantially less than the historical baseline truck miles traveled, there would be less than significant impacts with the transportation issues. Truck transport would be equal to or less than that identified as part of the historical average levels from the SMR, thereby reducing potential impacts along trucking routes; rail routes are well established and limited. Therefore, as the Project's potential impacts from trucking are already less than significant, this alternative would not provide reductions in potentially significant impacts and therefore has been eliminated from consideration.

5.1.6 Other Project Locations Alternative

CEQA requires that an EIR examine potential different locations for a project. This is applicable primarily for new projects where the location of a development, for example, could be different than the Project. However, for this Project involving the removal of existing facilities, there cannot be a different location. Therefore, this alternative has been eliminated from further consideration.

5.1.7 Reduced Remediation Alternative

The Project as proposed would remediate the site to industrial standards for soil and groundwater contamination. This alternative would involve remediating the site to a lower set of standards or not remediating all of the site. Conservative estimates based on the industrial standards define the maximum amount of material that would need to be removed under the Project. This amount of material removed also thereby defines the number of rail cars and trucks, as well as the duration and extent of the below ground efforts that are needed, and thereby duration of construction equipment activities. All of these affect the air emissions estimates, VMT, and other components of the Project. Remediation is also required by regulatory oversight, such as the Central Coast Water Board cleanup requirements, and would have to be implemented regardless of the alternative or Project. As remediation to at least the industrial standards would be a regulatory requirement, and as this alternative would not reduce any potentially significant impacts of the Project and may not be feasible, it has therefore been eliminated from further consideration.

5.1.8 Conservative Removal Alternative

The Project would involve removal of aboveground equipment and then belowground equipment only where remediation is required. This would entail leaving a potentially substantial amount of materials belowground as most of the belowground infrastructure may not be located in areas of

the site that would require remediation. This alternative would involve the removal of all belowground infrastructure, grading of a high percentage of the site and revegetation of those graded areas, resulting in about 81 percent of the site being vegetated as opposed to the Project level of 49 percent. Some areas would remain "hardscaped", including gravel and crushed concrete, for potential future use (primarily Area 3, Process and Electrical Substation/Switchyard; see Figure 2-3), and the items proposed to remain related to regulatory requirements (monitoring wells, groundwater remediation infrastructure) and other potential future use infrastructure (rail spur, electrical systems, wastewater outfall, etc.) would also remain.

As this alternative may produce some environmental benefits, full disclosure to the public is warranted. As per CEQA, the inclusion of this alternative "will foster informed decision making and public participation" (15126.6). Therefore, this alternative has been retained for full analysis in this section. More details are provided in Section 5.2.5 below.

5.2 Environmental Analysis of Selected Alternatives

The sections above discuss a number of potential alternatives to the Project. The alternatives identified for further detailed analysis and discussion in the environmentally superior alternative section are listed below:

- No Project Alternative;
- Full Removal of Facilities Alternative;
- Removal of Offshore Facilities Alternative
- Additional Remediation and Cleanup Alternative; and
- Conservative Removal Alternative.

Each of these are presented in the following section along with the potential impacts for each issue are compared to the Project.

5.2.1 No Project Alternative

Under the CEQA-required No Project Alternative, the demolition Project would not move forward. The SMR would remain in a shut-down, decommissioned state and no crude oil would be received or processed. It is possible that the SMR in its current state could be sold to an interested buyer, who would then design a project and submit an application to the County for review. This project would also need to go through the CEQA process, not unlike the process currently being implemented for the Project. This future use is speculative, however, and it is possible that the SMR would remain in a shut-down state for many years.

The SMR site is located within the coastal zone in an area covered by the County's adopted Local Coastal Plan (LCP) and appealable to the California Coastal Commission (CCC). Under County land use policies and codes in Title 23, the Project requires County approval of a Development Plan/Coastal Development Permit (DP/CDP), prior to issuance of Building Permits. The SMR currently operates under a 1990 County land use permit DP/CDP D890287D.

In addition, Phillips 66 holds an existing lease from the CSLC for the wastewater pipeline and offshore outfall extending from the plant to the ocean, which is proposed to remain in place as part of the Project. The CSLC lease expires in 2028.

In 1990, permit DP/CDP D890287D the County issued to Phillips 66 increased the throughput of the Refinery. The permit has a number of stipulations, including the following:

- Noise condition NOI-1: High noise construction activities shall occur only between 6:30 a.m. and 9:00 p.m. on Monday through Saturday of any week, and shall not occur on federal, state, or county holidays. High noise construction activities are defined as those which significantly increase the sound pressure level over the normal operations measurable at the Unocal property line.
- Reduction of Construction Impacts condition SOC-2: For all construction workers, (applicant and contractor) applicant shall identity on and off-site parking areas and access routes, shall discourage large numbers of vehicles accessing the refinery, shall stagger work shifts to a non-peak hour traffic schedule, shall maintain lists of available housing, and shall discourage workers from using public campgrounds as living quarters. Construction worker parking shall not interfere with normal and reasonable use of private property or recreational areas.
- Abandonment - Removal of Debris and Unused Materials condition ABN-1. During the life of the project, applicant will remove debris, including all equipment and material no longer in use.
- Abandonment - Site Restoration Required condition ABN-2: Within 1 year of cessation of petroleum processing and shipping operations subject to this approval, applicant shall have dismantled and removed all approved facilities and equipment, and shall have cleaned and plugged, and abandoned in place all other associated pipelines. The time for completion of abandonment procedures may be extended by the planning Director as part of approval of the abandonment plan to be submitted by Unocal. Abandonment shall include restoring facility sites approved herein to pre-Project conditions, including recontouring and revegetation with local native plant materials, excavating contaminated soil and mitigating abandonment impacts.

Under the No Project Alternative, the Applicant would not demolish the facilities and therefore not fulfill the obligations under their existing permit requirements as discussed above. It is possible, under a bankruptcy or other proceeding, that the Applicant could not abandon the facilities on the site.

Continued shut-down status of the facilities at the SMR under the No Project Alternative would entail periodic site visits and maintenance of facilities, which could require nominal pickup truck and maintenance truck visits with minimal staff utilization continuing indefinitely. The groundwater monitoring wells and the slop oil remediation facilities under Waterboard permits would continue to operate, and the Northern Inactive Waste Site (NIWS) site restoration would continue until revegetation criteria are met. No other facilities would be operational. Tanks, piping, and vessels will have been cleaned out and purged as per current San Luis Obispo County Air Pollution Control District (SLOCAPCD) permits, and monitoring and remediation activities are

ongoing and not part of the Project, no inventory of crude oil, sulfur, coke, or other materials would be maintained on site.

As CEQA also assumes that state regulatory schemes would be applicable, the remediation of contaminated soils and groundwater as required by the Central Coast Water Board would still occur under this alternative. Given this, there may be some removal of some aboveground and belowground structures in order to accommodate the soil remediation. However, efforts to provide backfill or grading, particularly of Area 6, and revegetation would not occur. This alternative assumes that the contamination at the site would be able to be identified and removed, as required by existing regulations. However, as Phillips 66 has indicated that they believe that full remediation of the site, as would be required by the Central Coast Water Board, would not be possible without removing aboveground equipment, this alternative may have some feasibility issues. As CEQA requires an analysis of the No Project Alternative, it has been retained. Assessment of potential impacts relative to the Project are discussed below for each issue area.

Aesthetics
Under the No Project Alternative, the SMR would remain in a shut-down state and no crude oil would be processed. Under impacts AE.1, AE.2, and AE.3 (Vistas, Visual Quality and Light/Glare), as many of the aboveground elements of the SMR might remain, impacts to Aesthetic Resources would be greater than under the Project. Beneficial impacts might still occur if extensive amounts of aboveground infrastructure is required to be removed to access remediation, but the beneficial aspects of the Project most likely would be substantially reduced under this alternative.

Agricultural Resources
Under the No Project Alternative, the SMR would remain in a shut-down state and no crude oil would be processed. Under impacts AG.1 Farmland Conversion, AG.2 Williamson Act, AG.3 Zoning Conflict, and AG.4 Indirect Conversion, as the alternative would occur on site, and the alternative would not result in farmland conversion, Williamson Act impacts, or zoning conflicts, impacts related to Agricultural Resources would be similar under the Project and the No Project Alternative. The mitigation measure under AG.4, AQ.1-1 related to fugitive dust impacts, would still apply as some remediation and soil movement would occur under this alternative.

Air Quality
Under the No Project Alternative, the SMR facilities would remain in place and no demolition would take place. The SMR would no longer be operating, so the emissions levels for this alternative would be reduced compared to the historical operations. There would continue to be regulatory requirements, primarily by the Central Coast Water Board, to remediate portions of the site which have previously been identified to have potential contamination. For example, the ongoing Slop Oil Line Release and the NIWS remediation and restoration activities would continue under the No Project Alternative, which would generate some nominal emissions due to site visits by a few trucks weekly at the most.

In addition, the contaminated soils and groundwater at the site would have to be remediated based on Central Coast Water Board requirements. This would entail soil characterization testing and removal of up to the estimated maximum 200,500 cubic yards discussed in Chapter 2.0, Project Description. The testing and removal of these soils may require the removal of some aboveground and belowground infrastructure. This would require activities potentially less than the Project, as

less infrastructure may have to be removed, but some level of aboveground and belowground infrastructure would have to be removed in order to test for and remove contaminated soils. This would require the use of construction equipment and activities that could be less intense, but somewhat similar to, the Project.

The emissions from demolition discussed in impacts AQ.1 and AQ.3 (construction criteria pollutants and toxics), would occur at a lower level and associated mitigation measure (MM) AQ.1-1 and AQ.3-1 would be applicable. Impacts related to AQ.2, operational emissions, would continue to be applicable as some activity would continue on site related to remediation and restoration activities. Impacts related to odors, AQ.4, would potentially occur, but at a lower level, with regulatory requirements necessitating the removal of soils. Compliance with Plans, AQ.5, would also be similar and MM AQ.5-1 would be applicable.

Biological Resources

Under the No Project Alternative, the SMR would remain in a shut-down state and no crude oil would be processed. Some soil remediation and associated grading would take place as required under the Central Coast Water Board soil remediation regulatory requirements. Under impacts BIO.1 through BIO.11 related to protected species and habitat impacts, impacts would be similar but potentially less than the Project as less soil movement and grading may occur. Mitigation measures associated with impacts BIO.1 through BIO.11 would still apply.

Impacts related to ESHA and ESHA policies (BIO.12 and BIO.15) would still apply as some areas that would be required to be remediated under the No Project Alternative may have ESHA that could be impacted. Mitigation measure BIO.12-1 would still apply.

Impacts related to protected trees (BIO.16) would still apply as some areas that would be required to be remediated under the No Project Alternative may have trees that could be impacted. Mitigation measure BIO.16-1 would still apply.

Impacts related to wetlands, species movement, and habitat conservation plans (BIO.13, BIO.14 and BIO.17) would be similar to the Project under this alternative.

Cultural and Tribal Cultural Resources

Under the No Project Alternative, the SMR would remain in a shut-down state and no crude oil would be processed. Some soil remediation and associated grading would take place as required under the Central Coast Water Board soil remediation regulatory requirements. Under impacts CT.2 through CT.4 related to archaeological resources, human remains, and tribal impacts, impacts would be similar but less than the Project as less soil movement and grading would occur. Mitigation measures associated with impacts CT.2, CT.3, and CT.4 would still apply.

Impacts related to historical resources (CT.1) would be similar to the Project under this alternative.

Energy

Energy use under the No Project Alternative would be reduced from the Project as the construction activities would not be conducted to the same level, and the diesel fuel use would be reduced from hauling less demolition debris, and depending on the extent of belowground contamination that is required to be removed. SMR historical operations energy use levels would no longer occur, thereby resulting in a net reduction in long-term energy use as the SMR would no longer be

operating. Impacts EN.1 and EN.2 (Energy Use and Standards) would continue to be applicable, but with lower construction-related energy levels.

Geology and Soils
Under the No Project Alternative, the SMR would remain in a shut-down state and no crude oil would be processed. Under impacts GEO.1 and GEO.2, as the activities would be similar but less under the No Project Alternative compared to the Project and neither one would result in additional seismic issues as per CEQA, impacts related to geologic hazards would be similar under the Project and the No Project Alternative.

With respect to erosion impact GEO.3, short-term erosion-related impacts associated with the Project would occur less under the No Project Alternative as less activity would occur. As a result, erosion-related impacts would be less under the No Project Alternative, and would remain less than significant.

For impacts GEO.4 (expansive soils) and GEO.5 (safety element), impacts associated with the Project would occur less under the No Project Alternative as less activity would occur. As a result, impacts would be less under the No Project Alternative, and would remain less than significant.

With respect to mineral resources impact GEO.6, the Project site does not overlie an area of valuable mineral resources. Therefore, impacts related to mineral resources would be similar under the Project and the No Project Alternative.

Greenhouse Gas Emissions
Under this alternative, the SMR would remain in a shut-down state as under the Project and there would be a net reduction in GHG emissions. Impact GHG.1 (GHG emissions) would continue to be applicable, but less construction emissions would be generated. GHG.2 (GHG Policys) would also continue to be applicable, but probably to a lesser extent as less construction activities are expected to occur.

Hazards and Hazardous Materials
For hazards, handling of contaminated soils would occur under this alternative, thereby having similar impacts associated with HAZ.1. As some soil remediation and potentially additional groundwater remediation beyond what is currently performed, would still be needed as part of the regulatory requirements, impact HAZ.1 and MM HAZ.1-1 would still be applicable.

Impact HAZ.2 through HAZ.7 (routine and upsets, schools, listed sites, airports, emergency response and wildfire) and MM HAZ.2-1, MM HAZ.2-2, MM HAZ.4-1, and MM HAZ.7-1 would be applicable as some construction activities would occur, although to a lesser extent than the Project due to reduced demolition. Additional hazards may occur due to the remaining aboveground infrastructure, due to potential vandalism or attractiveness of the area to mischief. However, as access to the site would be limited (on-site fencing would remain) and access to the site would be illegal, it is not further addressed.

Hydrology and Water Quality
Under the No Project Alternative, the SMR would remain in a shut-down state and no crude oil would be processed. Remediation would still be required as per Central Coast Water Board

requirements. Impact HWQ.1 (water quality) under the No Project Alternative would be similar to the Project and MM HAZ.2-1 would apply.

For impact HWQ.1, with respect to erosion-induced sedimentation of drainages and incidental spills from remediation equipment, short-term water quality impacts associated with the Project would occur under the No Project Alternative but to a lesser extent. As a result, water quality-related impacts would be less under the No Project Alternative.

For impact HWQ.2 related to seawater intrusion, groundwater quality impacts under the No Project Alternative would be similar to the Project, as the No Project Alternative would similarly not include new (i.e., in addition to the existing Slop Oil Line Release remediation) groundwater remediation activities, thus minimizing the potential for increased seawater intrusion. Known areas where there is Project soil remediation would continue and removal of the known source material of groundwater contamination under the No Project Alternative would be realized as under the Project. Therefore, the No Project Alternative would result in similar groundwater quality impacts as the Project.

For impacts HWQ.3, HWQ.4, and HWQ.6, with respect to stormwater runoff rates, drainage patterns, flooding and soil absorption, impacts would be similar to the Project under the No Project Alternative, as the No Project Alternative would result in a similar amount of impervious surfaces and stormwater runoff.

For impact HWQ.5, both the Project and the No Project Alternative would be completed outside a flood hazard area. Therefore, impacts would be the same under the Project and this alternative.

For impact HWQ.7, with respect to water supply and demand, the No Project Alternative would require less water demand and most likely less area would be disturbed. Therefore, the No Project Alternative would result in slightly less impacts compared to the Project.

For impact HWQ.8, both the Project and this alternative would not be in an area subject to flood impacts. Therefore, impacts would be same under the Project and this alternative.

Land Use and Planning

Under the No Project Alternative, the SMR would remain in a shut-down, decommissioned state and no crude oil would be processed. Under impact LUP.1 related to dividing a community, impacts would be similar to the Project.

Impacts related to particulate emissions policies in the short term (LUP.2) would still apply as some areas that would be required to be remediated under the No Project Alternative may require soil movement and grading. Mitigation measures AQ.1-1 and AQ.3-1 would still apply. Impacts related to particulate emissions policies in the long term (LUP.3) would still apply and be beneficial. Impacts related to other policies (such as coastal access) (LUP.4) would still apply and be the same as the Project.

Noise

For the No Project Alternative, fewer construction activities would occur. Therefore, there would be less noise impacts from construction averaged over the long term. However, peak noise levels

would be similar to the peak noise levels from the Project, as similar equipment arrangements may occur for short periods with the same peak noise-producing equipment arrangement in the same location as the Project (such as the tank removal, and the pulverizer and rock crusher). As some construction activities would still occur at a similar peak level, impact NOI.1 (noise increases) and mitigation measures NOI.1-1 and NOI.1-2 would be applicable. Impacts NOI.2 (vibration) and NOI.3 (vibration) would be applicable.

Public Services, Utilities and Service Systems
Under the No Project Alternative, the SMR would remain in a shut-down state and no crude oil would be processed. Under impacts PSU.1 through PSU.8, related to fire, police, LMUSD, parks, water supplies, wastewater, and solid waste, impacts would be similar to the Project.

Recreation and Coastal Access
Under the No Project Alternative, the SMR would remain in a shut-down state and no crude oil would be processed. Under impacts REC.1 and REC.2, related to parks and recreational facilities, impacts would be similar to the Project.

Transportation
Under the No Project Alternative, the SMR facilities would remain in place and no demolition would take place. The SMR would no longer be operating, so the traffic levels would be reduced over the historical operating scenario. There would continue to be regulatory requirements, primarily by the Central Coast Water Board, to remediate portions of the site which have been identified to have potential contamination, which would generate some trips due to site visits by trucks, but at a lower level than the Project. The trips from demolition discussed in impact TR.1 through TR.3 (VMT, trains, safety) would occur at a lower level as most likely not as much material would be demolished in order to achieve the remediation requirements. As some truck trips would continue under this alternative, mitigation measure TR.1-1 would be applicable.

Wildfire
The risks of wildfire from on-site construction would be similar to the Project, and impacts WF.1, WF.2, and WF.3 (wildfires, infrastructure, slopes/landslides) would be applicable. MM HAZ.7-1 would still be applicable.

5.2.2 Full Removal of Facilities Alternative

Under the Project, a number of facilities are proposed to remain in place for potential future use or due to regulatory requirements. Under this alternative, all facilities would be removed except those required due to regulatory requirements. Table 5.1 lists the facilities under the Project that would remain and their associated status under this alternative.

Table 5.1 Full Removal Alternative Facilities Remaining Status

Facility	Proposed Project Status	Full Removal Alternative Status
Rail spurs at carbon plant and refinery.	Remain	Remove
Truck scale.	Remain	Remove

Table 5.1 Full Removal Alternative Facilities Remaining Status

Facility	Proposed Project Status	Full Removal Alternative Status
Main substation and PG&E power poles and lines to the substation.	Remain	Remove
Perimeter security fencing and solar-powered perimeter lighting.	Remain	Remove
Guard shacks.	Remain	Remove
Groundwater production wells #2, #4, #5, and #6 (used for potable water, fire water, and industrial water at the SMR) or other wells that may be evaluated to provide vertical conduits for contamination..	Remain	Remove
Groundwater monitoring wells.	Remain, for regulatory purposes	Remain, for regulatory purposes
Slop Oil Line Release remediation system components (remediation is in progress under separate permit)	Remain, for regulatory purposes	Remain, for regulatory purposes
Pig receivers/launcher at north boundary for maintenance of off-site pipelines.	Remain	Remove
Maintenance roads for maintenance of remaining facilities.	Remain	Remove
Hardscapes (concrete, asphalt, compacted base/gravel, or asphalt emulsion coating).	Remain	Remove, except for limited areas
Wastewater outfall line.	Remain	Remove
Natural gas lines and crude and product lines (four lines total) from the pig receiver/launcher to the property line.	Remain	Remove
Belowground pipelines (former 8-inch gas fuel line, 8-inch oil line, and 4-inch diluent line) in an approximately 1,200-foot segment extending southwesterly from within the refinery fence line near the wastewater treatment plant to the Phillips 66 property line.	Remain	Remove

Source: Applicant application materials and Chapter 2.0, Project Description

In general, under this alternative, all of the facilities proposed to remain associated with the Project post-belowground efforts would be removed except for the following:

- Groundwater monitoring wells would remain to allow for regulatory requirements associated with ground water monitoring; and
- The Slop Oil Line Release remediation system components to allow for continued remediation of the slope oil line release (to be eventually removed once remediation of the slope oil line release has been completed).

Note that the pig receivers/launcher at north boundary, which would be used for maintenance of off-site pipelines, would be removed and the pipelines underground would be removed from the pig receivers to the property line and capped closed. Some limited hardscapes would remain, allowing for access to regulatory requirement infrastructure, such as roads to access monitoring wells.

The SMR site would be recontoured and revegetated with most of the site vegetated under this alternative.

Removal of these additional facilities could feasibly utilize the extensive set of construction equipment already proposed for demolition and remediation associated with the Project. However, additional timing would be required, and additional truck or rail trips required in order to remove these facilities. The equipment, tons, duration, and transportation requirements listed below assume no benefits associated with co-arrangements with the current Project efforts and are therefore a worst-case removal estimate. This alternative assumes a similar construction equipment arrangement and requirements, but a longer duration, than the Project.

***Site Construction equipment requirements*:** general construction equipment requirements would include similar equipment as the Project. For the removal of the offshore portion of the wastewater outfall line, a construction barge and associated tug would also be required along with diving support equipment.

***Total tons of materials to be removed*:** total weight of materials is estimated to be about 1,568 tons of rail, concrete, road material, pipe, and miscellaneous materials in addition to those specified for the Project. Weights are based on rail weights per foot, pipe weights by size and type/per foot, and estimates for other materials.

***Duration*:** an additional 24 weeks are estimated to be required to remove the additional facilities. Note this is a worst case and assumes no overlap in facilities removal (such as offshore and onshore occurring at the same time).

***Transportation Requirements*:** movement by truck would total about an additional 85 truck trips, or by rail would total an additional 15 railcars (or about two trains). These would be in addition to those proposed for the Project.

Outfall Construction Requirements: the removal of the outfall would involve removing the onshore portion of the outfall pipeline and the marine, offshore portion of the outfall pipeline. The onshore portion would utilize some of the same equipment that would be utilized for the on-site portion, such as backhoes and dozers, to move the sand and soil and uncover the outfall pipeline, which would then be cut and loaded onto trucks for recycle or another disposal method. Portions of the outfall pipeline may also be pulled from areas where the sand is deep and exposure of the pipeline is more difficult.

For the marine offshore portion, the outfall pipeline would be lifted by a barge crane and cut and loaded onto a barge or supply boat that would then transport the sections to port. The section that is located on the beach/intertidal areas would be removed through pulling from onshore areas. The vessels required would be a crane barge, a transport barge or a supply boat, tugs for barge maneuvering and transport and crew boats. Anchoring of barges and vessels would be required. Vessels would maintain fuel for diesel engines on the barges/vessels.

Note that some efficiencies could be gained through removal of all infrastructure, thereby reducing the equipment requirements listed above, the duration, and even the transportation requirements, for both the Project demolition and the additional facilities under this alternative, simultaneously, but these estimates above address the potential range of efforts.

Assessment of potential impacts relative to the Project are discussed below for each issue area.

Aesthetics
Under this alternative, all facilities not designated as required for regulatory purposes would be removed. Under impacts AE.1, AE.2, and AE.3 (Vistas, Visual Quality and Light/Glare), as the same prominent aboveground elements of the SMR would be removed as under the Project, impacts to Aesthetic Resources would be similar to the Project. Beneficial impacts would still occur, and the beneficial aspects of the Project would be similar under this alternative, with a slight improvement due to the reduction in hardscapes that may be visible from some limited areas.

Agricultural Resources
Under this alternative, all facilities not designated as required for regulatory purposes would be removed. Under impacts AG.1, AG.2, AG.3, and AG.4 (farmland conversion, Williamson Act, zoning conflict), as the areas impacted are within the site, impacts would be similar under the Project. As this alternative would not result in farmland conversion, Williamson Act impacts, or zoning conflicts, impacts related to Agricultural Resources would be similar under the Project and this alternative. The mitigation measure under AG.4, AQ.1-1 related to fugitive dust impacts, would still apply as remediation and soil movement would occur under this alternative.

Air Quality
Under the Full Removal Alternative, additional construction would occur to remove the additional facilities, including the offshore outfall pipeline. Like the Project, the SMR would no longer be operating, and the same activities would be required associated with construction associated with the Project, and the alternative emissions levels would be reduced over the historical operating scenario. While total emissions would increase as the duration of activities would increase, most likely the peak day and peak quarter emissions would remain the same under the Project. Peak levels of NO_x + ROG and fugitive dust would be similar to the Project levels. Therefore, the peak emissions from demolition and remediation discussed in impact AQ.1, would be the same as the peak Project and associated MM AQ.1-1 would be applicable. Impacts related to AQ.2, operational emissions, would continue to be applicable as some activity would continue on site related to remediation and restoration activities.

Impacts related to toxic emissions would be somewhat greater under this alternative as the toxic cancer impacts are related to total emissions of particulate DPM over the alternative Project duration. Therefore MM AQ.3-1 would still be applicable.

Impacts related to odors, AQ.4, would continue to potentially occur at the same level as the Project. Compliance with Plans, AQ.5, would also be similar and MM AQ.5-1 would be applicable.

Biological Resources
Under this alternative, all facilities not designated as required for regulatory purposes would be removed. Soil remediation and associated grading would take place to a greater extent than the Project, and the majority of the site would be revegetated. Under impacts BIO.1 through BIO.11, related to protected species and habitat impacts, impacts would be similar but greater than the Project as more soil movement and grading would occur. Mitigation measures associated with impacts BIO.1 though BIO.11 would still apply.

Impacts related to ESHA and ESHA policies (BIO.12, BIO.15) would still apply as some areas that would be required to be remediated under this alternative may have ESHA that could be

impacted and most likely more areas could be impacted. Mitigation measure BIO.12-1 would still apply.

Impacts related to protected trees (BIO.16) would apply as some areas that would be required to be remediated under this alternative may have trees that could be impacted and as more areas would be impacted, the potential for impacts to protected trees would be greater. Mitigation measure BIO.16-1 would still apply.

Impacts related to wetlands, species movement and habitat conservation plans (BIO.13, BIO.14 and BIO.17) would be similar to the Project under this alternative.

Biological Resources (Marine)
Removal of the offshore outfall pipeline could produce impacts to marine biological resources. The California Department of Fish and Wildlife (CDFW) website provides information on the resources in the vicinity of the outfall pipeline. These are shown on Figure 5-1, which shows the location of harbor seal haul-out areas, shore types, artificial reefs, surfgrass, wetlands, estuaries, kelp canopy, and predicted substrate.

As shown in Figure 5-1, the area along the outfall is primarily beaches with soft substrate, with minimal eelgrass or kelp canopy. The closest seal haul-out area is located to the north about 12 kilometers in Pismo Beach. The area along this stretch of coast north to Montana De Oro State Park and south to Point Conception is also designed as critical habitat for black abalone (*Haliotis cracherodii*) in California, as designated by the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service, under the Endangered Species Act.

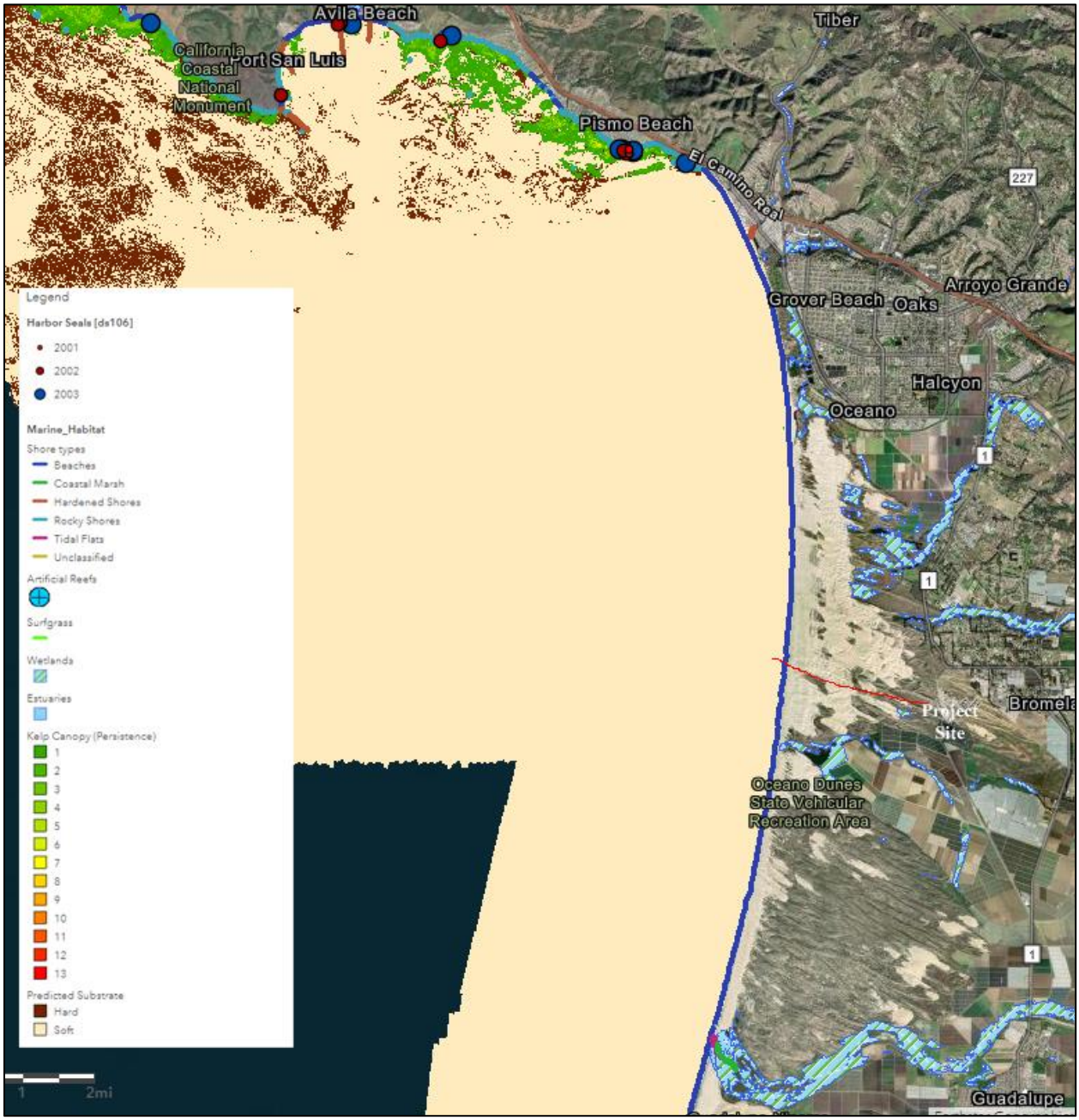
The outfall is inspected by Phillips 66 annually. The most recent report for the inspection occurring October 2022 indicates that the entire outfall line, and all capped risers were completely buried, and only the riser assemblies above the flanges were visible (i.e., protruding above the sand). Seafloor depth (uncorrected by tidal height) at Riser 1 was 37 feet as recorded by the divers' computers. All active and capped risers were functioning properly during the inspection. The thirteen risers (both active and capped) were encrusted with bryozoan colonies, tunicates, and barnacles (*Balanus* spp.). Negligible differences were observed in the amount of encrusting marine growth between the risers. The amount of marine growth observed occurring on the risers was similar to that found in 2021. The sandy benthic substrate surrounding the diffuser and along the outfall line corridor hosted extensive beds of sand dollars (*Dendraster excentricus*), an invertebrate common to wave-exposed beaches in central California.

Removal of the outfall pipeline would impact an estimated 0.5 acres of area offshore (10 feet wide by 2000 feet long).

Due to the relatively sparse amount of marine organisms in the area, removal of the outfall pipeline has a low potential for impacts to marine biological species. Even with this low potential, marine organisms could be located in or would travel through the area, and potential impacts to marine organisms through vessel impacts or other measures could generate impacts. In addition, as the area is designated as a black abalone habitat, there is the potential for impact to black abalone. Incorrect anchoring, inadvertent impacts to marine mammals or potential spills of fuels or oils

could cause impacts to black abalone or marine organisms. Given this, mitigation measures are listed below.

Figure 5-1 Marine Biological Resources



Source: CDFW website map viewer, https://mrsenv.maps.arcgis.com/home/webmap/viewer.html?webmap=600a4b1d99f945738db7219fd04cd230

Alt-Fullremoval-BioMarine.1-1 Marine Protection Plan: *A marine protection plan shall be developed that includes a preconstruction survey for black abalone, anchoring measures to prevent impacts from barge and vessel anchors, measures to prevent impacts from potential spills, and measures to reduce the potential for impacts to marine species. These are addressed below:*

a) ***Preconstruction Survey for Black Abalone:*** *Prior to removal of the outfall, the Applicant or its designee shall conduct a survey by a qualified biologist (i.e., certified/approved by NOAA Fisheries and CDFW) within the area of impact to determine if black abalone are present. If black abalone are discovered in the work area, they shall be relocated by a qualified biologist with appropriate authorization from NOAA Fisheries and CDFW to predetermined suitable habitat areas located outside the immediate impact area. Relocation of black abalone would require a biologist with a scientific collection permit, and obtaining a Project incidental take permit and letter of authorization from CDFW. Monitoring shall also be conducted to assess the effectiveness of relocation for a duration as prescribed by NOAA Fisheries, and CDFW. Results of each such survey and relocation monitoring event shall be submitted to the County, State Lands Commission, NOAA Fisheries, and CDFW within 30 days following completion of surveys, and a final summary report submitted within 60 days following completion of construction activity.*

b) ***Anchoring Measures:*** *The Applicant shall prepare marine safety and anchoring measures to avoid or minimize, as feasible, impacts to Essential Fish Habitat (EFH) Habitat of Particular Concern (HAPC) such as rocky reef habitat, canopy kelp, or eelgrass beds. The measures components would be developed following the analysis of a pre-construction seafloor habitat and bathymetric survey. Additionally, a confirmation or ground truthing survey shall be conducted to ensure that all pre-determined anchor locations are positioned in sedimentary habitats and avoid impacts to rocky substrata, kelp, or eelgrass beds. The measures shall also include the types and sizes of vessels to be anchored, anchoring and mooring systems that may be utilized, and general anchoring procedures. The measures shall be incorporated into any permits related to barge loading or offshore demolition. Documentation of the mooring system installation shall be submitted to the County within 30 days of installation to document compliance with this measure.*

c) ***Spill Prevention Measures:*** *The Applicant shall provide an Oil Spill Response Plan to outline initial response and procedures to be followed in the event of an inadvertent release of hazardous materials such as fuel or oil as a result of Project activities. The plan shall include at a minimum, a description of the Project scope-of-work and geographic area; pre-work planning needed to prepare for a possible nearshore oil spill; initial response procedures including agency notifications and on-site team communications; how the waste from the oil spill will be handled and disposed of; and a description of how the area will be decontaminated and how any contaminated materials will be handled. The plan shall be reviewed and approved by various agencies including, at a minimum, the County, CSLC, CDFW, NOAA Fisheries, and the CDFW Office of Spill Prevention and Response (OSPR). Each*

Project vessel shall have a copy of the plan and shall maintain the required spill response equipment. Additional shore-based response equipment shall be on site, which can be used for first-response containment and collection of petroleum that reaches the shoreline. If necessary, additional personnel and equipment shall be deployed to assist in the recovery and disposal of spilled petroleum.

d) ***Marine Mammal Monitoring and Protection Measures:*** *The Applicant shall develop a Marine Mammal and Sea Turtle Mitigation and Monitoring Plan to ensure that no harassment of marine mammals or other marine life occurs during both offshore and onshore Project activities. The plan shall be developed and approved by the County as part of NOAA Fisheries, CDFW, and USFWS consultation under the Marine Mammal Protection Act, and shall include:*

   a. *Description of the work activities including vessel size, activity types and locations, and proposed Project schedule.*

   b. *The qualifications, number, location, and roles/authority of dedicated marine wildlife observers (MWOs).*

   c. *The distance, speed, and direction transiting vessels shall maintain when in proximity to a marine mammal or turtle.*

   d. *Observation recording procedures and reporting requirements in the event of an observed impact to marine wildlife. Collisions with marine wildlife shall be reported promptly to the NOAA Fisheries, CDFW, CCC, USFWS, and CSLC pursuant to each agency's reporting procedures.*

   e. *A final report summarizing daily reports and any actions taken shall be submitted to the County, NOAA Fisheries, CDFW, CCC, CSLC, and USFWS within 60 days following completion of monitoring.*

Submittal Timing: *Prior to offshore demolition permit issuance* ***Approval Trigger:*** *Issuance of offshore demolition permit* ***Responsible Party:*** *The Applicant* ***What is required:*** *Black Abalone Survey* ***To whom it is submitted and approved by:*** *CDFW, CSLC, NOAA, and County Department of Planning and Building.*

Implementation of the mitigation, in combination with the relatively small areas of disturbance associated with the outfall, and the general lack of advantageous habitat, would reduce the impacts to black abalone, anchoring impacts, potential spills, and potential impacts to marine mammals. However, due to the uncertainty with the viability of the black abalone relocation efforts, the impacts would be **significant and unavoidable (Class I).**

Cultural and Tribal Cultural Resources

Under this alternative, all facilities not designated as required for regulatory purposes would be removed. Soil remediation and associated grading would take place to a greater extent than the Project. Under impacts CT.2 through CT.4 related to archaeological resources, human remains, and tribal impacts, impacts would be similar but greater than the Project as more soil movement

and grading would occur. Mitigation measures associated with impacts CT.2, CT.3, and CT.4 would still apply.

Impacts related to historical resources (CT.1) would be similar to the Project under this alternative.

Energy
For energy use under this alternative, impacts would be similar to the Project, with greater diesel use under this alternative as more construction would be required. However, impacts EN.1 and EN.2 (energy use and standards) would be similar as those under the Project.

Geology and Soils
Under the Full Removal of Facilities Alternative, all facilities would be removed except those required due to regulatory requirements. Therefore, under impacts GEO.1 and GEO.2, impacts related to geologic hazards would be similar under the Project and the Full Removal of Facilities Alternative.

For impact GEO.3, with respect to erosion, short-term erosion-related impacts associated with the Full Removal of Facilities Alternative would be greater than under the Project, as more ground disturbance would occur. However, impacts associated with the Full Removal of Facilities Alternative would similarly be less than significant, as erosion-related impacts would be reduced to less than significant levels with implementation of a Stormwater Pollution Prevent Plan (SWPPP) and associated Best Management Practices (BMPs).

Impact GEO.4, related to expansive soils, would be similar to the Project as expansive soils are not an issue at the site.

Impact GEO.5, related to the safety element, would also be similar to the Project for this alternative.

For impact GEO.6, with respect to mineral resources, the Project site does not overlie an area of valuable mineral resources. Therefore, impacts related to mineral resources would be similar under the Project and the Full Removal of Facilities Alternative.

Greenhouse Gas Emissions
Under this alternative, peak construction activities would be similar to the Project, but with longer duration in activities in order to remove the additional facilities. However, the peak year of construction would be similar to the Project. Impacts GHG.1 and GHG.2 (GHG emissions, GHG Policy) could be the same as the Project.

Hazards and Hazardous Materials
Under this alternative, impacts would be similar to the Project as the potential for contaminated soils handling issues under impact HAZ.1. MM HAZ.1-1 related to contaminated soil vapor handling would still be applicable.

Potential accidental issues would be the same as the Project on site, but with increased risk of spills into the marine environment due to the construction offshore related to the outfall line. Impact HAZ.2 (upsets) would have an increase over the Project and MM HAZ.2-1 and MM HAZ.2-2 would still be applicable to this alternative.

Impact HAZ.4 and MM HAZ.4-1 related to sitewide soil sampling and remediation would still be applicable.

Impacts HAZ.3, HAZ.5, and HAZ.6 (schools, airports, emergency response) would be the same as the Project.

Impact HAZ.7 and MM HAZ.7-1 related to wildfire potential and mitigation would also be similar and applicable but with a slight increase as there would be construction activities off site in the dunes area, with a potential for wildfire impacts in that area as well as near the site.

Hydrology and Water Quality

Under the Full Removal of Facilities Alternative, all facilities would be removed except those required due to regulatory requirements. For impact HWQ.1, with respect to potential water quality impacts related to incidental spills of petroleum products and other pollutants during demolition activities, impacts would be incrementally greater under this alternative, as more demolition work would be required. However, similar to the Project, impacts under this alternative would be less than significant with mitigation and MM HAZ.2-1 would apply.

For impact HWQ.1, with respect to erosion, short-term erosion-related water quality impacts associated with the Full Removal of Facilities Alternative would be greater than under the Project, as more ground disturbance would occur. However, impacts associated with the Full Removal of Facilities Alternative would similarly be less than significant, as erosion-related water quality impacts would be reduced to less than significant levels with implementation of a SWPPP and associated BMPs.

For impact HWQ.2 related to seawater intrusion, groundwater quality impacts under the Full Removal of Facilities Alternative would be similar to the Project, as this alternative would not include new (i.e., in addition to the existing Slop Oil Line Release remediation) groundwater remediation activities, thus minimizing the potential for increased seawater intrusion. It is possible that new sources of groundwater contamination may be discovered, as would be the case with the Project and all other alternatives, and impacts of this alternative in that case would be similar to the Project. With respect to groundwater contamination, impacts associated with this alternative would be similar to the Project.

For impacts HWQ.3, HWQ.4, and HWQ.6, with respect to stormwater runoff rates, drainage patterns, flooding and soil absorption, beneficial impacts associated with the Full Removal of Facilities Alternative would occur that would not under the Project, as more impervious surfaces would be removed, resulting in decreased stormwater runoff.

For impact HWQ.5, both the Project and the Full Removal of Facilities Alternative would be completed outside a flood hazard area. Therefore, impacts would be the same under the Project and this alternative.

For impact HWQ.7, with respect to water supply and demand, the Full Removal of Facilities Alternative would require a longer demolition and remediation schedule than the Project, which in turn would require more water for dust suppression. However, because the amount of water

required for dust suppression for the Project is less than four percent of the recent years' water demand, the incremental increase in water required for dust suppression for the Full Removal of Facilities Alternative would similarly result in beneficial impacts.

For impact HWQ.8, both the Project and this alternative would not be in an area subject to flood impacts. Therefore, impacts would be the same under the Project and this alternative.

Land Use and Planning
Under this alternative, all facilities not designated as required for regulatory purposes would be removed. Under impact LUP.1 related to dividing a community, impacts would be similar to the Project.

Impacts related to particulate emissions policies in the short term (LUP.2) would still apply and would potentially increase as greater areas would be disturbed under this alternative. Mitigation measures AQ.1-1 and AQ.3-1 would still apply. Impacts related to particulate emissions policies in the long term (LUP.3) would still apply and be beneficial. Impacts related to other policies (such as coastal access) (LUP.4) would still apply and be the same as the Project.

Noise
Construction activities under this alternative would be similar to the Project, as the intensity of activities during the peak periods would be the same as the Project. The same peak noise-producing equipment arrangements would occur in the same location as the Project (such as the tank removal, and the pulverizer and rock crusher). However, as the duration of the construction would increase, the number of days when it is noisy from construction activities would increase. Impact NOI.1 related to construction noise, and MM NOI.1-1 and NOI.1-2 would still be applicable. Impacts NOI.2 and NOI.3 (vibration, airports) would also be applicable.

Public Services, Utilities and Service Systems
Under this alternative, all facilities not designated as required for regulatory purposes would be removed. Under impacts PSU.1 through PSU.8, related to fire, police, LMUSD, parks, water supplies, wastewater, and solid waste, impacts would be similar to the Project.

Recreation and Coastal Access
Under this alternative, all facilities not designated as required for regulatory purposes would be removed. Under impacts REC.1 and REC.2, related to parks and recreational facilities, impacts would be similar to the Project.

Transportation
Construction activities under this alternative would be similar to the Project, as the intensity of activities during the peak periods would be the same as the Project. However, as the duration of the construction would increase, the long-term total traffic levels from construction activities would increase. Impact TR.1 related to construction trips, and MM TR.1-1 would still be applicable. Impacts TR.2 and TR.3 (trains, safety) would also be applicable.

Wildfire
As construction activities would occur similar to the Project, but with somewhat longer duration, the risks of wildfire would be marginally increased over the Project as there would be construction

activities off site in the dunes area, with a potential for wildfire impacts in that area as well as near the site, and impacts WF.1, WF.2, and WF.3 (wildfires, infrastructure, slopes/landslides) would be applicable, with MM HAZ.7-1 still applicable.

5.2.3 Removal of Offshore Facilities Alternative

A number of facilities are proposed to remain in place for potential future use. Under this alternative, all of the facilities would remain as proposed in the Project except for the wastewater outfall pipeline, which would be removed. The wastewater outfall line is currently under a lease to the CSLC which expires in 2028. It is subject to a number of lease requirements.

The outfall line status in the future could take a number of routes: 1) near-term removal and termination of the CSLC lease; 2) re-use and transfer of the lease, if another party wants to utilize the outfall line, or 3) allow it to remain in place until lease expiration, at which point the lease could be extended, transferred or terminated with subsequent removal of facilities.

The CSLC lease PRC 1449.1 signed in 2011 is to Phillips 66, not the land, so future abandonment by Phillips 66 would be enforceable by the state. Prior to the expiration of the lease in 2028, the CSLC would require that Phillips 66 prepare a plan indicating either removal or a lease extension/transfer. See Figure 5-2 for the outfall location.

The lease has a number of applicable sections, specifically those listed below:

- Section 2.4 requires annual ROV inspections;
- Section 4.4 indicates required continuous use, and that discontinuance of use after 90 days is considered abandonment of the facilities. Use of the lease shall be continuous;
- Section 11.a.3 defines default of the lease including abandonment; and
- Section 11.c defines remedies for default, including requiring removal of improvements.

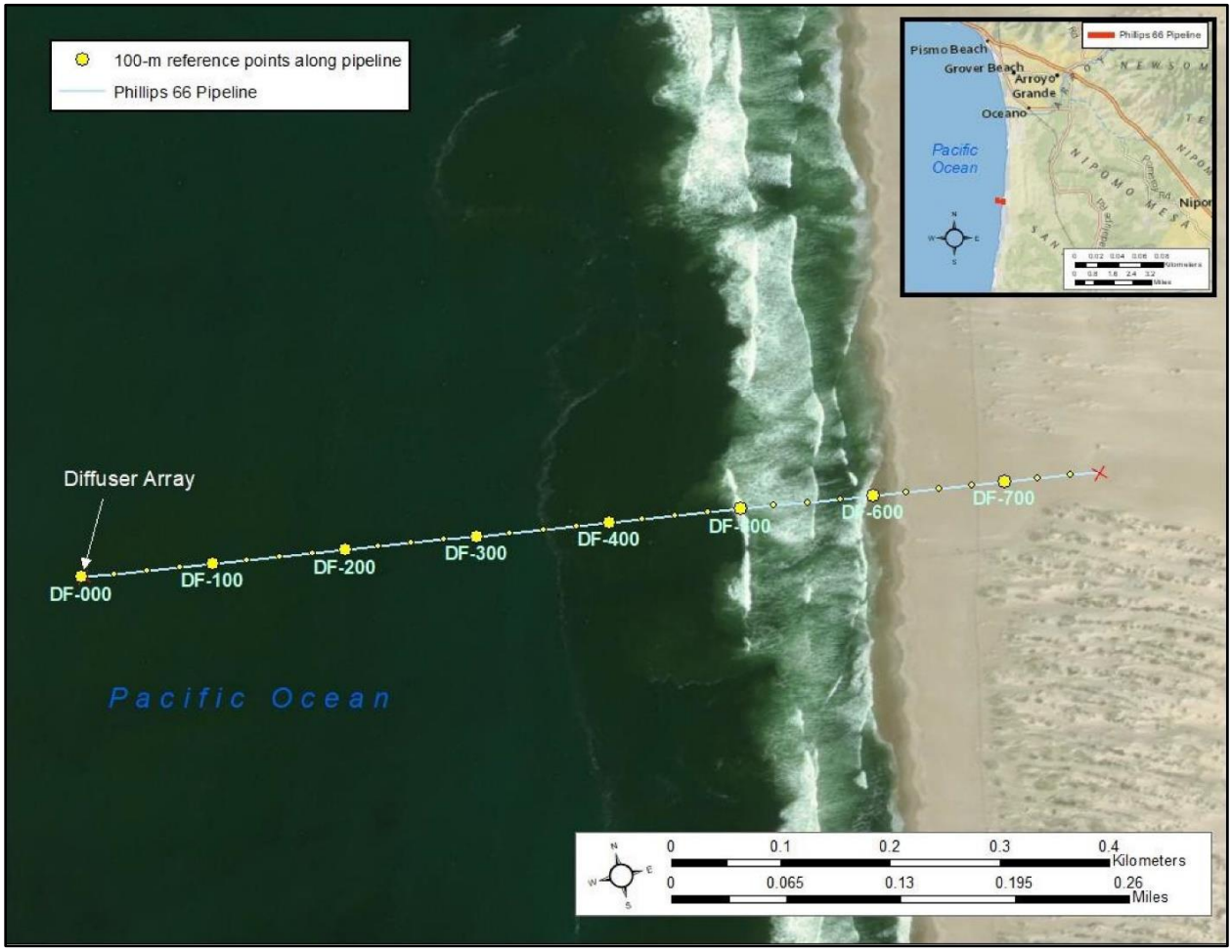
Discussion between the County and CSLC indicate that, at this time, the outfall is not considered “abandoned”, but is considered “non-use” status, which is similar to a caretaker status which allows for continued status and does not require removal.

However, as an alternative to the Project, full removal of the outfall line could eliminate potential impacts from outfall line exposure during storm events or shifting sands within the Oceano Dunes State Vehicular Recreation Area. The outfall is subject to annual inspections, and repairs on the diffusion end of the outfall have been recently conducted. Maintenance of the outfall line onshore historically has involved driving the pipeline route and occasional movement of sands with a bulldozer to ensure proper cover by sand.

The outfall is composed of about 12,000 feet of onshore 14-inch pipe, 2,133 feet of offshore 14-inch pipe, and about 40 feet of 10-inch diffuser pipe with an anchor and sled at the end. The diffuser section is equipped with 13 two-inch diameter vertical diffusers standing about three feet tall (eight of which are active and five inactive). The diffuser section sits about 38 feet below the ocean

surface. At the last inspection, the outfall pipe and lower portions of the vertical diffusers were buried by sand.

Figure 5-2 Outfall Location



Source: Phillips 66 2023

Complete removal (offshore and onshore) of the outfall line would involve the following:

***Construction equipment requirements*:** general construction equipment requirements are estimated to include a dozer (1), front loaders (2), welding trucks (2), and generator sets (1) for removal of the onshore portion of the outfall line. For the removal of the offshore portion of the outfall line, a construction barge and associated tug would also be required along with diving support equipment.

***Total tons of materials to be removed*:** total weight of materials is estimated to be about 445 tons of pipe and miscellaneous materials. Weights are based on pipe weights by size and type/per foot and estimates for other materials.

***Duration*:** an additional three weeks are estimated to be required to remove the additional facilities. Note this is a worst case and assumes no overlap in facilities removal (such as offshore and onshore occurring at the same time).

***Transportation*:** movement for onshore materials would total about an additional 23 truck trips, or by rail would total an additional two railcars, and a single barge trip (for offshore materials) to the Port of Los Angeles (POLA) or Port of Long Beach (POLB) disposal areas, such as the SA Recycling facility located at the POLA/POLB, which has metal processing capabilities exceeding 2.5 million tons per year. These trips would be in addition to those proposed for the Project.

Assessment of potential impacts relative to the Project are discussed below for each issue area.

Aesthetics
Under this alternative, additional construction would occur to remove the offshore facilities in addition to the Project-related facilities. Under impacts AE.1, AE.2, and AE.3 (vistas, visual quality and light/glare), as the same prominent aboveground elements of the SMR would be removed as under the Project, impacts to Aesthetic Resources would be similar to the Project. Beneficial impacts would still occur, and the beneficial aspects of the Project would be the same under this alternative.

Agricultural Resources
Under this alternative, additional construction would occur to remove the offshore facilities in addition to the Project-related facilities. Under impacts AG.1, AG.2, AG.3, and AG.4 (farmland conversion, Williamson Act, zoning conflict, conversions), as most of the areas impacted are within the site, impacts would be similar under the Project. Additional impact areas would be to the west of the Project site, in the dunes areas, that are not designated as farmland; therefore, no additional impacts would occur. As this alternative would not result in farmland conversion, Williamson Act impacts, or zoning conflicts, impacts related to Agricultural Resources would be similar under the Project and this alternative. The mitigation measure under AG.4, AQ.1-1 related to fugitive dust impacts, would still apply as remediation and soil movement would occur under this alternative.

Air Quality
Under the offshore removal alternative, additional construction would occur to remove the offshore facilities in addition to the Project-related facilities. Like the Project, the SMR would no longer be operating, and the same activities would be required associated with construction associated with the Project at the onshore areas, and the alternative emissions levels would be reduced over the historical operating scenario. However, most likely the peak day and peak quarter emissions would remain the same under the alternative as the Project and the duration of the activities would be the same as the Project, with offshore and outfall-related onshore activities scheduled for a period when the construction equipment is available for these activities and site-related construction activities are no longer at their peak periods. Peak levels of NO_x + ROG and fugitive dust would therefore be similar to the Project levels. The peak day and quarter emissions impacts from demolition and remediation discussed in impacts AQ.1 and AQ.3 (construction emissions, toxics), would be the same as the Project and associated MM AQ.1-1 and MM AQ.3-1 would be applicable. Some increase in total emissions would occur due to the construction equipment along the outfall line, but these emissions are more remote from receptors and toxic

cancer risk under impact AQ.3 would remain similar to the Project. Impacts related to AQ.2, operational emissions, would continue to be applicable as some activity would continue on site related to remediation and restoration activities and would be the same as the Project. Impacts related to odors, AQ.4, would continue to potentially occur at the same level as the Project and MM AQ.4-1 would be applicable. Compliance with Plans, AQ.5, would also be similar and MM AQ.5-1 would be applicable.

Biological Resources
Under this alternative, additional construction would occur to remove the offshore facilities in addition to the Project-related facilities. Soil remediation and associated grading would take place to a greater extent than the Project due to the removal of the outfall system. Under impacts BIO.1 through BIO.11 related to protected species and habitat impacts, impacts would be similar but greater than the Project as more soil movement and grading would occur. Mitigation measures associated with impacts BIO.1 though BIO.11 would still apply.

Impacts related to ESHA and ESHA policies (BIO.12, BIO.15) would still apply as some areas that would be required to be remediated under this alternative may have ESHA that could be impacted, and the outfall areas would also have ESHA impacts, and most likely more areas could be impacted. Mitigation measure BIO.12-1 would still apply.

Impacts related to protected trees (BIO.16) would apply as some areas that would be required to be remediated under this alternative may have trees that could be impacted and as more areas would be impacted, the potential for impacts to protected trees would be greater. Mitigation measure BIO.16-1 would still apply.

Impacts related to wetlands, species movement and habitat conservation plans (BIO.13, BIO.14 and BIO.17) would be similar to the Project under this alternative.

Biological Resources (Marine)
Like the full removal alternative above, the removal of outfall pipeline within the marine environment would require some mitigation measures to ensure impacts are not realized. Mitigation measure Alt-Fullremoval-BioMarine.1-1 Preconstruction Survey for Black Abalone would still be applicable, and impacts would remain significant due to uncertainties associated with black abalone relocation efforts.

Cultural and Tribal Cultural Resources
Under this alternative, additional construction would occur to remove the offshore facilities in addition to the Project-related facilities. Soil remediation and associated grading would take place to a greater extent than the Project associated with the outfall areas. Under impacts CT.2 through CT.4 related to archaeological resources, human remains, and tribal impacts, impacts would be similar but greater than the Project as more soil movement and grading would occur. Mitigation measures associated with impacts CT.2, CT.3, and CT.4 would still apply.

Impacts related to historical resources (CT.1) would be similar to the Project under this alternative.

Energy
Energy use under this alternative would be slightly greater than the Project due to the construction equipment use along the outfall line, but overall energy impacts would be similar to the Project. Impacts EN.1 and EN.2 (energy use and standards) would be the same as those under the Project.

Geology and Soils
Under the Removal of Offshore Facilities Alternative, all the facilities would remain as proposed in the Project except for the wastewater outfall pipeline, which would be removed. As described for the Project geologic hazard impacts, including seismically induced ground failure, expansive soils, and coastal erosion, impacts would only be significant if the Project resulted in impacts to the environment. Potential exposure and damage of the wastewater outfall pipeline because of geologic hazards would not be considered an environmental impact. Therefore, impacts related to geologic hazards under impacts GEO.1 and GEO.2 would be similar under the Project and this alternative.

However, under impact GEO.3, short-term erosion-related impacts associated with the Removal of Offshore Facilities Alternative would be greater than under the Project, as more ground disturbance would occur because of outfall pipeline removal. Like the Project, impacts associated with the Full Removal of Facilities Alternative would be less than significant, as erosion-related impacts would be reduced to less than significant levels with implementation of a SWPPP and associated BMPs.

For impacts GEO.4 (expansive soils) and GEO.5 (safety element), impacts associated with the Project would occur similar to this alternative as similar activity would occur. As a result, impacts would be similar under this alternative, but would remain less than significant.

For impact GEO.6, with respect to mineral resources, the Project site does not overlie an area of valuable mineral resources. Therefore, impacts related to mineral resources would be similar under the Project and the Removal of Offshore Facilities Alternative.

Greenhouse Gas Emissions
Under this alternative, peak construction activities would be similar to the Project, but with total emissions increasing somewhat due to the additional activities in order to remove the additional facilities. Impacts GHG.1 and GHG.2 (GHG emissions, GHG Policy) would be the same as the Project.

Hazards and Hazardous Materials
Under this alternative, impacts would be similar to the Project as the potential for contaminated soils handling issues under impact HAZ.1 would be similar. MM HAZ.1-1 would still be applicable.

Potential issues related to accidents would be somewhat greater than the Project as the potential for offshore spills of diesel fuels or hydraulic oils would be introduced by the use of offshore equipment (barges, support vessels), with impact HAZ.2 being somewhat increased and MM HAZ.2-1 and MM HAZ.2-2 being applicable to this alternative.

Impact HAZ.4 and MM HAZ.4-1 related to sitewide soil sampling and remediation would still be applicable.

Impacts HAZ.3, HAZ.5, and HAZ.6 (schools, airports, emergency response) would be the same as the Project.

Impact HAZ.7 and MM HAZ.7-1 related to wildfire potential and mitigation would also be applicable, but with a slight increase as there would be construction activities off site in the dunes area, with a potential for wildfire impacts in that area as well as near the site.

Hydrology and Water Quality

Under the Removal of Offshore Facilities Alternative, all the facilities would remain as proposed in the Project except for the wastewater outfall pipeline, which would be removed. Short-term erosion-related impacts associated with impact HWQ.1, with the Removal of Offshore Facilities Alternative, would be greater than under the Project, as more ground disturbance would occur because of on land activities associated with outfall pipeline removal and would occur outside of the SMR site. Like the Project, impacts associated with this alternative would be less than significant, as erosion-related impacts on land would be reduced to less than significant levels with implementation of a SWPPP and associated BMPs.

For impacts HWQ.1, with respect to potential water quality impacts related to incidental spills of petroleum products and other pollutants during demolition activities (both on land and offshore), impacts would be incrementally greater under the Removal of Offshore Facilities Alternative, as more demolition work would be required, and some could occur offshore. However, similar to the Project, impacts under the Removal of Offshore Facilities Alternative would be less than significant with mitigation, and MM HAZ.2-1 would apply.

For impact HWQ.2 related to seawater intrusion, groundwater quality impacts under the Removal of Offshore Facilities Alternative would be similar to the Project, as this alternative may not include new (i.e., in addition to the existing Slop Oil Line Release remediation) groundwater remediation activities, thus minimizing the potential for increased seawater intrusion. It is possible that new sources of groundwater contamination may be discovered, as would be the case with the Project and all other alternatives, and impacts of this alternative in that case would be similar to the Project. With respect to groundwater contamination, impacts associated with this alternative would be similar to the Project.

For impacts HWQ.3, HWQ.4, and HWQ.6, with respect to stormwater runoff rates, drainage patterns, flooding and soil absorption, impacts would be similar to the Project under this alternative, as this alternative would result in a similar amount of impervious surfaces and stormwater runoff.

For impact HWQ.5, both the Project and this alternative would be completed outside a flood hazard area. Therefore, impacts would be the same under the Project and this alternative.

For impact HWQ.7, with respect to water supply and demand, this alternative would require an additional three weeks of demolition than the Project, which in turn would require more water for dust suppression. However, because the amount of water required for dust suppression for the Project is less than four percent of the recent years' water demand, incrementally more water

required for dust suppression for the Removal of Offshore Facilities Alternative would similarly result in beneficial impacts.

For impact HWQ.8, both the Project and this alternative would not be in an area subject to flood impacts. Therefore, impacts would be same under the Project and this alternative.

Land Use and Planning
Under this alternative, additional construction would occur to remove the offshore facilities in addition to the Project-related facilities. Under impact LUP.1 related to dividing a community, impacts would be similar to the Project.

Impacts related to particulate emissions policies in the short term (LUP.2) would still apply and would potentially increase as greater areas would be disturbed under this alternative. Mitigation measure AQ.1-1 and AQ.3-1 would still apply. Impacts related to particulate emission policies in the long term (LUP.3) would still apply and be beneficial. Impacts related to other policies (such as coastal access) (LUP.4) would still apply and be the same as the Project.

Noise
Construction activities at the Project site under this alternative would be similar to the Project, as the intensity of activities during the peak periods would be the same as the Project. Offshore activities could also add to the noise levels in the area, but the offshore area is located a substantial distance from any receptors (more than 2.5 miles), thereby making minimal contributions to any noise impacts. Impact NOI.1 related to construction noise and MM NOI.1-1 and NOI.1-2 would still be applicable. Impacts NOI.2 and NOI.3 would also be applicable.

Public Services, Utilities and Service Systems
Under this alternative, additional construction would occur to remove the offshore facilities in addition to the Project-related facilities. Under impacts PSU.1 through PSU.8, related to fire, police, LMUSD, parks, water supplies, wastewater, and solid waste, impacts would be similar to the Project.

Recreation and Coastal Access
Under this alternative, additional construction would occur to remove the offshore facilities in addition to the Project-related facilities. Under impacts REC.1 and REC.2, related to parks and recreational facilities, impacts would be similar to the Project.

Transportation
Construction activities under this alternative would be similar to the Project, as the intensity of activities during the peak periods would be the same as the Project. However, some additional truck trips may be generated from additional construction activities and would impact port areas and the same areas as the Project (Willow Road). These port-related trips would be nominal, and the site trips would remain below the historical baseline. Impact TR.1 related to construction trips and MM TR.1-1 would still be applicable. Impacts TR.2 and TR.3 (trains, safety) would also be applicable.

Wildfire
As construction activities would occur similar to the Project, with somewhat higher intensity during some periods for work offshore, the risks of wildfire would be similar to the Project but with a slight increase as there would be construction activities off site in the dunes area, with a potential for wildfire impacts in that area as well as near the site, and impacts WF.1, WF.2, and WF.3 (wildfires, infrastructure, slopes/landslides) would be applicable, with MM HAZ.7-1 still applicable.

5.2.4 Additional Remediation and Cleanup Alternative

The Project proposes to remediate the site to industrial standards. Site cleanup standards vary depending on the specifics of a site, its proximity to environmental receptors, the depth of the contamination, depth to the groundwater, groundwater use, contaminant types, etc., and must be approved by the Central Coast Water Board. As part of this Project, the cleanup standards for contaminants of concern in soil at a particular site would be based on resolution NO. 92-49. [Policies and Procedures for Investigation and Cleanup and Abatement of Discharges] and may also utilize other tools including the levels provided in the United States Environmental Protection Agency (U.S. EPA) Regional Screening Levels (RSLs) and/or the 2019 San Francisco Bay Regional Water Quality Control Board Tier 1 Environmental Screening Levels (ESLs).

Generally, industrial standards for soil are in the range of 500–1,000 parts per million (ppm) total hydrocarbons. For sites that may have residential development or educational facilities, the cleanup targets are generally stricter, designated as residential/unrestricted use level. Levels down to 100 ppm total hydrocarbons in soil and 1 ppm in water can be prescribed. Central Coast Water Board Environmental Screening Levels Tier 1, for unrestricted use assuming a generic site model, indicate levels down to 100 ppm for lighter petroleum materials (gasoline, etc.) (Phillips 66 2021).

Removal of contaminated soils to a level of 100 ppm associated with this alternative would require the removal of additional soils, generating additional volumes of soil and associated rail cars and truck trips. The additional amount of soil to achieve these cleanup levels is an estimate based on historical sampling and environmental assessments. The NIWS area cleanup, for example, registered about 34 soil sampling sites examining soil TPH concentrations from one to 25 feet deep. Examining the vertical and horizontal gradients of soil concentrations indicates that TPH levels down to 100 ppm from 1000 ppm would extend the plume area at the NIWS out an average of 9.1 feet, with a maximum extension of 21.7 feet based on proximate sampling locations. Applying this to the projected amount of soil that would be excavated as part of the Project discussed in Chapter 2.0, Project Description, would correlate to an increase of about 20 percent in soil volumes, including a safety factor of 2x. However, as there are a lot of uncertainties with projections in soil volumes based on different TPH levels from soil sampling, assuming a worst-case increase of contaminated soils of 50 percent over the Projects estimated 200,500 cubic yards would add approximately 100,000 cubic yards of contaminated soil, producing an additional 125 trains hauling 1,000 rail cars and an additional 500 trucks as well as some additional belowground/hardscape removal/disturbance.

Assessment of potential impacts relative to the Project are discussed below for each issue area.

Aesthetics
Under this alternative, additional construction would occur to remove the additional contaminated soils. Under impacts AE.1, AE.2, and AE.3 (vistas, visual quality and light/glare) as the same prominent aboveground elements of the SMR would be removed as under the Project, impacts to Aesthetic Resources would be similar to the Project. Beneficial impacts would still occur, and the beneficial aspects of the Project would be the same under this alternative.

Agricultural Resources
Under this alternative, additional construction would occur to remove the additional contaminated soils. Under impacts AG.1, AG.2, AG.3, and AG.4 (farmland conversion, Williamson Act, zoning conflict, conversions), as the areas impacted are within the site, impacts would be similar under the Project. As this alternative would not result in farmland conversion, Williamson Act impacts, or zoning conflicts, impacts related to Agricultural Resources would be similar under the Project and this alternative. The mitigation measure under AG.4, AQ.1-1 related to fugitive dust impacts, would still apply as remediation and soil movement would occur under this alternative.

Air Quality
Under this alternative, additional construction would occur to remove the additional contaminated soils. Like the Project, the SMR would no longer be operating, and the same activities would be required associated with demolition and grading construction as with the Project, and the alternative's emissions levels would be reduced over the historical operating scenario. However, most likely the peak day and peak quarter emissions would remain the same under this alternative as under the Project, but the duration of the activities would be extended due to the increased amount of soils needing to be excavated under this alternative. Peak levels of NO_x + ROG and fugitive dust would be similar to the Project levels, but with total levels being higher due to an increased duration. Therefore, the emissions from demolition and remediation discussed in impact AQ.1 (peak emission levels), would be the same as the Project and associated MM AQ.1-1 would be applicable. Impacts related to AQ.2, operational emissions, would continue to be applicable as some activity would continue on site related to remediation and restoration activities.

Impacts related to AQ.3, toxic impacts, would increase under this alternative as total emissions and the alternative duration would increase, thereby increasing toxic cancer risk levels. MM AQ.3-1 would be applicable.

Impacts related to odors, AQ.4, would continue to potentially occur and at a level somewhat higher than the Project as more contaminated soils would be handled. MM AQ.4-1 would be applicable.

Compliance with Plans, AQ.5, would also be applicable and MM AQ.5-1 would be applicable.

Biological Resources
Under this alternative, additional demolition and grading construction would occur to remove the additional contaminated soils. Soil remediation and associated grading would take place to a greater extent than the Project. Under impacts BIO.1 through BIO.11 related to protected species and habitat impacts, impacts would be similar but greater than the Project as more soil movement and grading would occur. Mitigation measures associated with impacts BIO.1 though BIO.11 would still apply.

Impacts related to ESHA and ESHA policies (BIO.12, BIO.15) would still apply as some areas that would be required to be additionally remediated under this alternative may have ESHA that could be impacted, and most likely more areas could be impacted. Mitigation measure BIO.12-1 would still apply.

Impacts related to protected trees (BIO.16) would apply as some areas that would be required to be additionally remediated under this alternative may have trees that could be impacted and as more areas would be impacted, the potential for impacts to protected trees would be greater. Mitigation measure BIO.16-1 would still apply.

Impacts related to wetlands, species movement and habitat conservation plans (BIO.13, BIO.14 and BIO.17) would be similar to the Project under this alternative.

Cultural and Tribal Cultural Resources

Under this alternative, additional demolition and grading construction would occur to remove the additional contaminated soils. Soil remediation and associated grading would take place to a greater extent than the Project. Under impacts CT.2 through CT.4 related to archaeological resources, human remains, and tribal impacts, impacts would be similar but greater than the Project as more soil movement and grading would occur. Mitigation measures associated with impacts CT.2, CT.3, and CT.4 would still apply.

Impacts related to historical resources (CT.1) would be similar to the Project under this alternative.

Energy

For energy use under this alternative, impacts would be increased compared to the Project, with greater diesel use under this alternative as more construction and earthwork would be required. However, impacts EN.1 and EN.2 (energy use and standards) would be the same as those under the Project.

Geology and Soils

Under this alternative, the soil would be remediated to levels of contamination that would qualify for residential development, which is lower than under the Project, resulting in additional hardscape removal, soil excavation, off-site disposal, and excavation backfill with clean fill. Geologic hazards under impacts GEO.1 and GEO.2 (unstable earth, earthquakes) such as seismically induced ground failure would be similar to those described for the Project.

Under impact GEO.3, short-term erosion-related impacts associated with this alternative would be greater than under the Project, as more ground disturbance would occur in association with increased soil excavations, temporary soil stockpiling, and off-site disposal activities. Like the Project, impacts associated with this alternative would be less than significant, as erosion-related impacts would be reduced to less than significant levels with implementation of a SWPPP and associated BMPs.

Impact GEO.4, related to expansive soils, would be similar to the Project as expansive soils are not an issue at the site.

Impact GEO.5, related to the safety element, would also be similar to the Project for this alternative.

For impact GEO.6, with respect to mineral resources, the Project site does not overlie an area of valuable mineral resources. Therefore, impacts related to mineral resources would be similar under the Project and this alternative.

Greenhouse Gas Emissions
Under this alternative, peak year construction activities would be similar to the Project, but total GHG emissions would increase with the longer duration in activities in order to remove the additional contaminated soils. Impacts GHG.1 and GHG.2 (GHG emissions, GHG Policy) would be similar to the Project.

Hazards and Hazardous Materials
Under this alternative, impacts would be slightly greater than the Project as the potential for contaminated soils handling issues under impact HAZ.1 would marginally increase with the increased contaminated soil movement. MM HAZ.1-1 would still be applicable.

Impact HAZ.2 related to upset hazards would be similar to the Project and MM HAZ.2-1 MM HAZ.2-2 would be applicable to this alternative.

Impact HAZ.4 and MM HAZ.4-1 related to sitewide soil sampling and remediation would still be applicable.

Impacts HAZ.3, HAZ.5, and HAZ.6 (schools, airports, emergency response) would be the same as the Project. Impact HAZ.7 and MM HAZ.7-1 related to wildfire potential and mitigation would also be applicable and similar to the Project.

Hydrology and Water Quality
Under this alternative, the soil would be remediated to lower levels of contamination than under the Project, resulting in additional soil excavation, off-site disposal, and excavation backfill with clean fill. For impact HWQ.1, short-term erosion-related water quality impacts associated with this alternative would be greater than under the Project, as more ground disturbance would occur in association with increased soil excavations, temporary soil stockpiling, and off-site disposal activities.

For impact HWQ.1, with respect to potential water quality impacts related to incidental spills of petroleum products and other pollutants during demolition activities, impacts would be incrementally greater under this alternative, as more soil remediation would be required. However, similar to the Project, impacts under the Additional Remediation and Cleanup Alternative would be less than significant with mitigation, and MM HAZ.2-1 would apply.

For impact HWQ.2 related to seawater intrusion, groundwater quality impacts under the Additional Remediation and Cleanup Alternative would be similar to the Project, as this alternative may not include new (i.e., in addition to the existing Slop Oil Line Release remediation) groundwater remediation activities, thus minimizing the potential for increased seawater intrusion. It is possible that new sources of groundwater contamination may be discovered, as would be the case with the Project and all other alternatives, and impacts of this alternative in that case would be similar to the Project.

For impacts HWQ.3, HWQ.4, and HWQ.6, with respect to stormwater runoff rates, drainage patterns, flooding and soil absorption, impacts associated with this alternative would be similar to that under the Project, as similar amounts of impervious surfaces would remain, resulting in similar stormwater runoff.

For impact HWQ.5, both the Project and this alternative would be completed outside a flood hazard area. Therefore, impacts would be the same under the Project and this alternative.

For impact HWQ.7, with respect to water supply and demand, this alternative would require a longer remediation schedule than the Project, which in turn would require more water for dust suppression. However, because the amount of water required for dust suppression for the Project is less than four percent of the recent years' water demand, the incremental increase in water required for dust suppression for this alternative would similarly result in beneficial impacts.

For impact HWQ.8, both the Project and this alternative would not be in an area subject to flood impacts. Therefore, impacts would be same under the Project and this alternative.

Land Use and Planning

Under this alternative, additional construction would occur to remove the additional contaminated soils. Under impact LUP.1 related to dividing a community, impacts would be similar to the Project.

Impacts related to particulate emission policies in the short term (LUP.2) would still apply and would potentially increase as greater areas would be disturbed under this alternative. Mitigation measures AQ.1-1 and AQ.3-1 would still apply. Impacts related to particulate emission policies in the long term (LUP.3) would still apply and be beneficial. Impacts related to other policies (such as coastal access) (LUP.4) would still apply and be the same as the Project.

Noise

Peak level construction activities under this alternative would be similar to the Project, as the intensity of activities during the peak periods would be the same as the Project. The same peak noise-producing equipment arrangements would occur in the same location as the Project (such as the tank removal, and the pulverizer and rock crusher). However, as the duration would be longer than the Project, there might be more days that are noisy than the Project. Impact NOI.1 related to construction noise and MM NOI.1-1 and NOI.1-2 would still be applicable. Impacts NOI.2 and NOI.3 (vibration, airports) would also be applicable.

Public Services, Utilities and Service Systems

Under this alternative, additional construction would occur to remove the additional contaminated soils. Under impacts PSU.1 through PSU.8, related to fire, police, LMUSD, parks, water supplies, wastewater, and solid waste, impacts would be similar to the Project.

Recreation and Coastal Access

Under this alternative, additional construction would occur to remove the additional contaminated soils. Under impacts REC.1 and REC.2, related to parks and recreational facilities, impacts would be similar to the Project.

Transportation
Peak level construction activities under this alternative would be similar to the Project, as the intensity of activities during the peak periods would be the same as the Project. However, as the duration of the construction would increase, the long-term total traffic levels from construction activities would increase. Impact TR.1 related to construction trips, and MM TR.1-1 would still be applicable. Impacts TR.2 and TR.3 (trains, safety) would also be applicable.

Wildfire
As peak level construction activities would occur similar to the Project, but with somewhat longer duration, the risks of wildfire would be similar to the Project and impacts WF.1, WF.2, and WF.3 (wildfires, infrastructure, slopes/landslides) would be applicable, with MM HAZ.7-1 still applicable.

5.2.5 Conservative Removal of Facilities Alternative

This alternative would involve the removal of all belowground infrastructure and grading of a high percentage of the site and revegetation of those graded areas. Some areas would remain "hardscaped", including gravel and crushed concrete within Area 3 (20.7 acres, see Figure 2-3), for potential future use, and the items proposed to remain related to regulatory requirements (monitoring wells) and other potential future use infrastructure (rail spur, electrical systems, wastewater outfall, etc.) would also remain, the same as the Project. This is equivalent to the Project that was described in the Notice of Preparation (NOP).

A number of facilities under the Project are proposed to remain in place for potential future use or due to regulatory requirements. Under this alternative, all of the facilities proposed to be retained as part of the Project would also be retained, except for the majority of surface hardscape and all belowground infrastructure, which would be removed. Grading to fill and recontour most of the remediation and demolition areas would also be conducted with associated revegetation. Appendix A sheet 10B shows the areas of the site that would be graded. Only Area 3 would remain hardscaped for potential future use. About 81 percent of the site would be graded and vegetated as opposed to the current level and Project level of 49 percent of the site vegetated.

Removal of these additional facilities could feasibly utilize the extensive set of construction equipment already proposed for demolition and remediation associated with the Project. As this alternative would require that a substantial amount of additional grading and soil movement, and additional truck or rail trips would be utilized in order to remove these facilities, this alternative assumes that additional equipment would be utilized and that the timing would be similar to the Project. This is different than the Full Removal alternative or the Additional Remediation alternative above which assume a similar level of equipment as the Project but a longer duration.

The following sections address the belowground activities associated with this alternative. The aboveground activities would be the same as the Project.

5.2.5.1 Conservative Removal Alternative Debris and Waste Management

Belowground demolition and remediation waste types include concrete, asphalt, general construction and demolition mixed debris, regulated materials (e.g., asbestos) and waste soil. Table 5.2 provides the estimated types, weight, and volume of belowground demolition and remediation waste streams for the Conservative Removal Alternative.

Area 3 under this alternative is the only area to have hardscape to remain. Concrete and asphalt suitable for on-site reuse would be downsized/crushed and reused on site in Area 3 to the extent practical. As per the Project, a portable concrete crusher unit with a dedicated backhoe and an asphalt pulverizer would be staged at an existing refinery staging area. Off-road heavy equipment trucks would transport materials from the demolition sites to the crusher and pulverizer units.

As per the Project, excavated soil would be tested and handled in accordance with applicable procedures. Clean soil generated during excavation would be segregated and stockpiled for use as backfill. Impacted soil would be hauled to a centralized staging area near the rail spur. Remediation would generate an estimated volume of 200,500 cubic yards of waste soil.

Actual quantities of materials to be transported off site would be documented with truck and weight tickets for each load.

Material transport would occur regularly throughout the belowground demolition and remediation activities. As presented in Table 5.3, the number of truck trips would range from 15 to 55 trips per week during a period of overlapping aboveground and belowground demolition and remediation. As noted above, remediation would continue after completion of demolition; however, once demolition is completed, the overall site activity and off-site hauling activity would be less intensive.

5.2.5.2 Conservative Removal Alternative Belowground Demolition and Remediation Disposal Facilities

Table 5.3 lists the belowground demolition and remediation waste materials, estimated haul trips, and the primary disposal locations, as well as hauling distance and haul routes for the waste materials. Assumptions related to percentage of materials not reuseable on site or not suitable for hauling via train are the same as the Project. Clean soil would continue to be reused on site as backfill and for final contouring.

Table 5.2 Conservative Removal Alternative - Belowground Demolition and Remediation Waste and Recyclable Material Volumes and Off-Site Haul Loads

Material	Classification	Volume (Cubic Yards)	Weight (Tons)	Off-Site Haul Truck or Rail Loads[a]
Concrete[b]	Recyclable material	20,650	41,300	Concrete would be crushed and reused on site. An assumed 10% of belowground concrete may not be suitable for reuse and would be hauled off site.

Table 5.2 Conservative Removal Alternative - Belowground Demolition and Remediation Waste and Recyclable Material Volumes and Off-Site Haul Loads

Material	Classification	Volume (Cubic Yards)	Weight (Tons)	Off-Site Haul Truck or Rail Loads[a]
Asphalt[b]	Recyclable material	18,650	37,300	Asphalt would be crushed and reused on site. An assumed 10% may not be suitable for reuse and would be hauled off site.
Mixed debris[c]	C&D (partially eligible for recycling)	3,350	2,500	Mixed debris would be transported to a transfer station for sorting
Impacted soil off site[d]	Regulated waste (not eligible for recycling/reuse)	200,500	300,750	Impacted soil off site would be transported by rail to a landfill. An assumed 5% may be transported by truck
Total waste generated		243,150	381,850	
Total truckloads transported off site			85–1,485	
Total rail car loads transported off site			1,905–2,005	
Recyclable Waste breakdown		***Cubic Yards***		
Total waste generated eligible for recycling		42,650		
Total volume of mixed debris available for sorting and recycling		3,350		
Total mixed debris recycled at 65% recovery rate		2,178		
Total concrete and asphalt recycled		39,300		
Total quantity of materials recycled		41,478		
Percentage of materials generated to be recycled		97%	Recyclable material excludes regulated waste	

Notes: [a] Excludes on-site material hauling. Peak day air quality emissions assume 37 off-site truck trips during the peak day for all combined materials. [b] For conservative planning purposes, this analysis assumes that most of the asphalt roads within the fence line would be removed.
C&D = construction and demolition
Source: Phillips 66 Application

Table 5.3 Conservative Removal Alternative Belowground Demolition and Remediation Waste Hauling Destinations

Waste Material	Truck and Rail Haul Trips[a]	Disposal Transportation Mode and Destination	One-way Off-Site Truck Haul Distance[b] (Miles)	Transport Route
Crushed Concrete	Truck trips: 0–210c	By truck to Gator Crushing and Recycling 2363 Willow Road Arroyo Grande, California 93420 (if not reused on site)	Truck trips: 0.4	Willow Road facility exit to 2363 Willow Road, Arroyo Grande (adjacent to the SMR)

Table 5.3 Conservative Removal Alternative Belowground Demolition and Remediation Waste Hauling Destinations

Waste Material	Truck and Rail Haul Trips[a]	Disposal Transportation Mode and Destination	One-way Off-Site Truck Haul Distance[b] (Miles)	Transport Route
Crushed Asphalt	Truck trips: 0–190c	By truck to Gator Crushing and Recycling 2363 Willow Road Arroyo Grande, California 93420 (if not reused on site)	Truck trips: 0.4	Willow Road facility exit to 2363 Willow Road, Arroyo Grande (adjacent to the SMR)
Mixed debris	Truck trips: 85	By truck to Santa Maria Transfer Station 325 Cuyama Lane Highway 166 Nipomo, California 93444	Truck trips: 11.4	Willow Road to U.S. 101 south to Cuyama Lane
Soil	Rail cars: 1,905-2,005 Truck trips: 0–1,000d	By rail to Republic Services ECDC Landfill, East Carbon City Utah By truck to Waste Management, 56533 Highway 58 West McKittrick, California 93251	Truck trips: 128.0	Rail: Union Pacific interstate rail Truck: via Willow Road to U.S. 101 north, SR 46/41 east, SR 33 south to 2nd Street

Notes: [a] This information is from Phillips 66 Application materials.
[b] Haul distances are measured from the SMR entry/exit points at Willow Road. Excludes on-site hauling.
[c] Concrete and asphalt would be crushed and reused on site. For planning purposes, it is assumed that up to 10% of this crushed material would not be reusable on site and would be transported to an off-site handling facility.
[d] Impacted soil would be hauled by train. For planning purposes, it is assumed that up to 5% of impacted soil would be hauled by truck to a regional waste management facility.
SMR = Santa Maria Refinery.
Source: Phillips 66 Application

For the alternative, the waste hauling trucks would use the existing designated haul route between the SMR entry/exit and the Willow Road/U.S. Highway 101 interchange, as described for the Project.

5.2.5.3 Conservative Removal Alternative Refinery Trips and Designated Truck Route

An estimated maximum of 92 haul truck trips per week would occur during a period of combined aboveground and belowground demolition and remediation; under this scenario, peak activity would occur during Month 6 during a period of overlapping demolition and remediation. In the event a greater volume of these materials must be hauled by truck, there would be additional trips. As with the Project, in this case, overall truck trips would be managed to remain under the baseline of 37 trucks per day.

5.2.5.4 Conservative Removal Alternative Water Supply and Demand

Water use would increase over the Project as additional areas would be graded and require additional water for dust control.

5.2.5.5 Conservative Removal Alternative Workforce Commutes During Combined Demolition and Remediation

An estimated maximum of 45 workers would be on site during a period of combined aboveground and remediation activities. Remediation work crews would commute to the site from throughout the region, depending on the selection of contractors at the time of the work.

5.2.5.6 Conservative Removal Alternative Post-Remediation Grading Contouring, and Restoration Approach

Existing vegetation that has been designated as Environmentally Sensitive Habitat Areas (ESHA) would remain intact unless an area needs to be disturbed to accomplish subsurface demolition or remediation. In these cases, the disturbed area would be backfilled with available site material (including native material and segregated topsoil) and the surface would be revegetated with an appropriate seed mix.

At completion of demolition and remediation in a given area, the work site would be backfilled to the contour as defined by the grading plans (see Appendix A). Backfill material would be sourced from suitable on-site materials to be identified within the detailed grading plan (primarily Area 6, Coke Storage).

Hardscape is defined as concrete, asphalt, compacted base/gravel, or asphalt emulsion coating covering banks and berms (see Appendix A for a map of existing hardscapes). No new areas would be hardscaped. Only hardscapes in Area 3 would remain intact and areas along perimeter roadways.

In general, all disturbance areas would be stabilized in order to reduce the potential for fugitive dust, either by hardscaping (in Area 3) or by revegetation. For areas that are revegetated, the appropriate plant palettes and seed mixes would be selected during the detailed planning phase.

5.2.5.7 Conservative Removal Alternative Preliminary Grading Plan, Site Contour, and Restoration

Phillips 66 prepared a Preliminary Grading Plan that shows the Conservative Removal Alternative conceptual view of the final surface conditions after demolition and remediation of the SMR site (see Appendix A). In this scenario, most of the existing hardscape and belowground infrastructure would be removed and final grading and recontouring would be more extensive than the Project.

Conservative Removal Alternative Earthwork Calculations

The estimated cumulative totals of earthwork to establish the anticipated total volume of earth moved on or off the site under the conservative grading scenario are shown in Table 5.4 and in Appendix A.

Table 5.4 Expected Planning Scenario Cut and Fill by Area, cubic yards

Description	All Materials Volume, CY	Soil Only Volume, CY
Cut		
Remediation Soil (exported)	200,500	200,500
Native Soil from Area 6	0*	0*
Native Soil Recontouring	476,500	476,500
Miscellaneous concrete/asphalt export	5,820	-
Total Cut	682,820	677,000
Fill		
Native Soil from Area 6	0*	0*
Native soil Recontouring	476,500	476,500
Misc debris	37,570	-
Total Fill	514,070	476,500
Total cut and fill	1,196,890	1,153,500

Notes: * included in recontouring numbers; CY = cubic yards
Source: Phillips 66 Application grading plans sheet 1A

The Conservative Removal Alternative grading plans employed the following working assumptions:

- The site is delineated into seven (7) demolition and remediation sub-areas as shown on Preliminary Grading Plan Sheet 7. Demolition and remediation would occur in a systematic manner within these sub-areas while minimizing double handling of material;
- Each work area would be graded where feasible to include a basin to retain stormwater within the work sub-areas and within the overall Project site consistent with current drainage patterns as shown on Preliminary Grading Plan Sheet 18;
- Certain hardscape areas may remain for potential future development by others as shown on Preliminary Grading Plan (Attachment A); these areas are beyond 100 feet of County-designated Unmapped ESHA and are primarily in Area 3.
- All crushed concrete and asphalt would be re-used as fill material in the Coke Storage Area as indicated in the Grading Table on Preliminary Grading Plan Sheet 1 or as hardscape in Area 3;
- Where possible the site would be recontoured to mimic slopes and drainages consistent with the adjacent undisturbed areas while facilitating potential future beneficial uses given the current industrial zoning of the site;
- Roadways would be maintained to allow access to existing water supply and groundwater monitoring wells and other infrastructure to remain post-grading; and
- Revegetation would be appropriate to the site given the existing sandy soils and dust-prone conditions similar to the Oceano Dunes; no topsoil is proposed to be imported.

Belowground facilities proposed to remain include buried pipelines to be abandoned in place within the fence line. No septic systems, leachfields, storm drains, or other existing storm system infrastructure are proposed to remain.

5.2.5.8 Conservative Removal Alternative Post-Remediation Condition

The facilities that would remain after remediation would include the same facilities associated with the Project except the following:

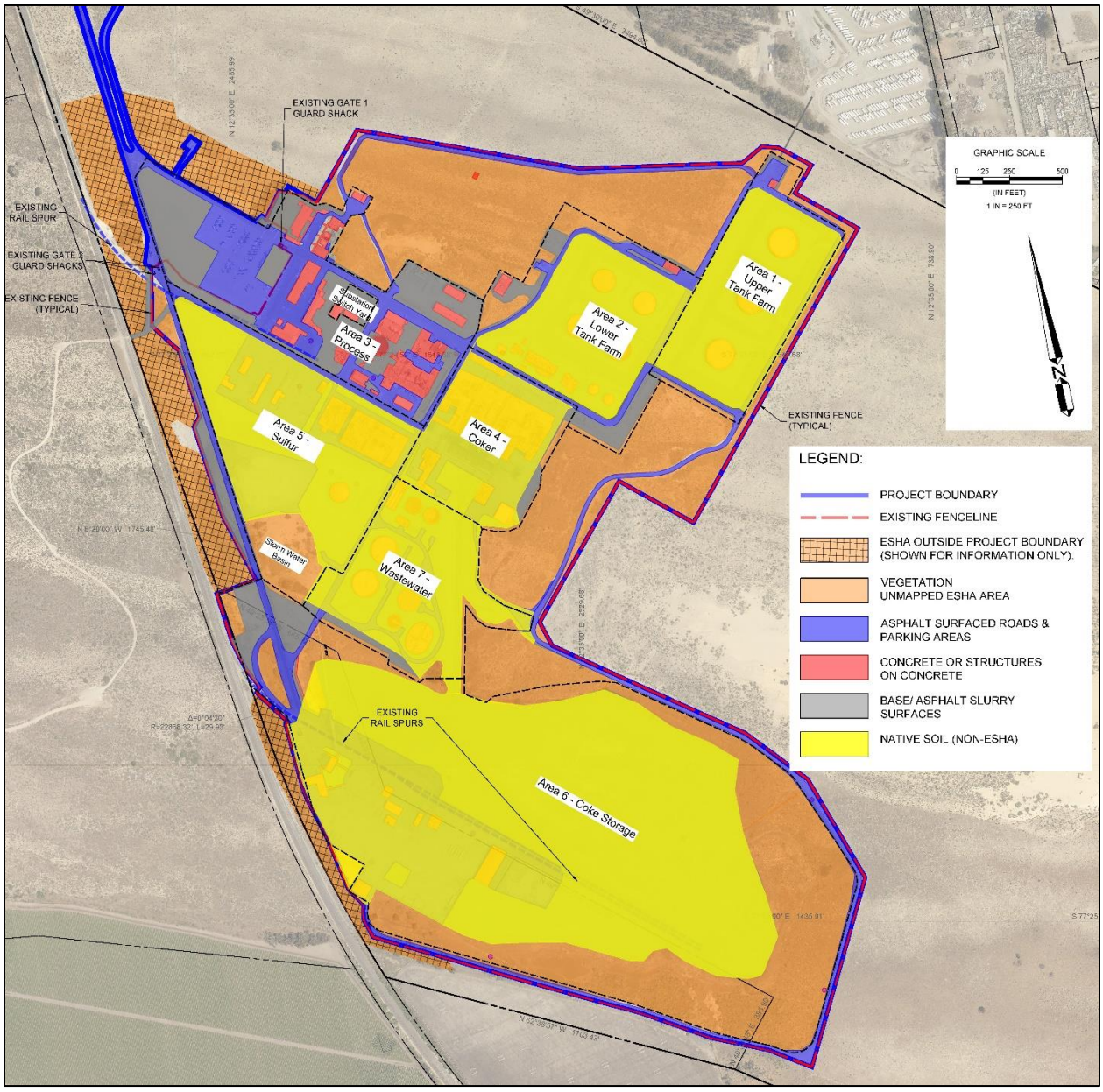
- Hardscapes would be removed (concrete, asphalt, compacted base/gravel, or asphalt emulsion coating) outside of Area 3 except for roadways and immediately adjacent areas.

Phillips 66 provided a high-end estimate of potential earthwork activity in order to provide a conservative basis for estimating construction activity and associated air emissions. Figure 5-3 shows the resulting hardscapes and ESHA and vegetated areas with this alternative. Table 5.5 shows the resulting site areas for the Conservative Removal Alternative, with a total of 81 percent of the Project site vegetation and native soils (revegetated).

Table 5.5 Conservative Removal Alternative Refinery Area by Type

Area Type	Area, acres
Asphalt-surfaced roads and parking areas	22.4 (16.0 inside fence line 6.4 outside fence line)
Concrete or structures on concrete slab	4.1
Stabilized with base or asphalt slurry	14.8 11.7 inside fence line 3.1 outside fence line
Vegetation ESHA	66.1
Native soil/revegetated areas	110.3
Total	217.7 total 208.2 inside fence line 9.5 outside fence line

Figure 5-3 Conservative Removal Alternative Hardscape and ESHA Areas



Note: native soil areas would be revegetated.
Source: Phillips 66 Application

5.2.5.9 Conservative Removal Alternative Project Activities: Site Stabilization and Restoration

Disturbance areas would be stabilized in order to reduce the potential for fugitive dust. Where hardscape is removed, the disturbed area would be replaced with hardscape only in Area 3. No new areas would be hardscaped. All other areas would be graded and revegetated.

Where vegetation is proposed, the area would be restored with appropriate soil stabilizers, plant palettes, and seed mixes that would be selected during the detailed planning phase. This effort would be the same as the Project except that additional areas would be revegetated.

5.2.5.10 Potential Impacts of the Alternative

Assessment of potential impacts relative to the Project are discussed below for each issue area.

Note that some efficiencies could be gained through removal of all belowground infrastructure, thereby reducing the equipment requirements listed above, the duration, and even the transportation requirements, for both the Project demolition and the additional facilities under this alternative, simultaneously, but these estimates above address the potential range of efforts.

Aesthetics
Under this alternative, additional construction would occur to remove the additional belowground facilities. Under impacts AE.1, AE.2, and AE.3 (vistas, visual quality and light/glare), as the same prominent aboveground elements of the SMR would be removed as under the Project, impacts to Aesthetic Resources would be similar to the Project. Beneficial impacts would still occur, and the beneficial aspects of the Project would be the same under this alternative.

Agricultural Resources
Under this alternative, additional construction would occur to remove the additional belowground facilities. Under impacts AG.1, AG.2, AG.3, and AG.4 (farmland conversion, Williamson Act, zoning conflict, conversions), as the areas impacted are within the site, impacts would be similar under the Project. As this alternative would not result in farmland conversion, Williamson Act impacts, or zoning conflicts, impacts related to Agricultural Resources would be similar under the Project and this alternative. The mitigation measure under AG.4, AQ.1-1 related to fugitive dust impacts, would still apply as remediation and soil movement would occur under this alternative.

Air Quality
Under the Conservative Removal Alternative, additional construction would occur to remove the additional belowground facilities and, unlike the other alternatives related to full removal or additional remediation, the Applicant indicates that additional equipment would be utilized. Like the Project, the SMR would no longer be operating, and the alternative's emissions levels would be reduced over the historical operating scenario. While total emissions would increase compared to the Project, due to the changes in intensity of construction activities, the peak day and peak quarter emissions would also increase relative to the Project.

Peak levels of NO_x + ROG and fugitive dust would increase relative to the Project levels. The emissions levels are shown in Table 5.6 and Table 5.7 and summarized relative to the thresholds in Table 5.8 below.

The emissions from demolition and remediation, discussed under Project impact AQ.1, would increase over the Project, but would still be below the thresholds with the inclusion of the baseline operating refinery emissions. MM AQ.1-1 would be still applicable.

Impacts related to AQ.2, operational emissions, would continue to be applicable as some activity would continue on site related to remediation and restoration activities.

Impact AQ.3, related to toxic emissions, would increase over the Project as total emissions of toxic materials would increase. MM AQ.3-1 would be applicable.

Impacts related to odors, AQ.4, would continue to potentially occur at the same level as the Project.

Compliance with Plans, AQ.5, would also be applicable and MM AQ.5-1 would be applicable.

Table 5.6 Conservative Removal Alternative Peak Quarter Emissions, Tons/Quarter with Mitigation

Activity	NO_x	ROG	PM_{10}	$PM_{2.5}$	CO	SO_x	DPM
Demolition and Remediation							
Construction Equipment	1.82	0.11	0.03	0.02	2.80	0.03	0.03
Construction Fugitive Dust			0.94	0.10			
Total On-site	1.82	0.11	0.97	0.12	2.80	0.03	0.03
Off-site Hauling							
Off-site Hauling: Trucks	0.51	0.01	0.01	0.01	0.03	0.00	0.00
Off-site Hauling: Trucks Fugitive Dust			0.59	0.15			
Off-site Hauling: Rail	0.09	0.00	0.00	0.00	0.03	0.00	0.00
Total Off-site	0.60	0.01	0.61	0.15	0.06	0.00	0.01
Peak Quarter Total	2.42	0.12	1.58	0.27	2.86	0.03	0.04
Peak Quarter On-site, NO_x + ROG	1.93						
Peak Quarter Off-site, NO_x + ROG	0.61						
Peak Quarter Total NO_x + ROG	2.54						
Peak Quarter Total Fugitive Dust On-site	0.94						
Peak Quarter Total Fugitive Dust	1.53						

Table 5.7 Conservative Removal Alternative Daily Emissions, Pounds/Day with Mitigation

Activity	NO_x	ROG	PM_{10}	$PM_{2.5}$	CO	SO_x	DPM
Demolition and Remediation							
Construction Equipment	55.60	3.26	0.82	0.77	86.40	0.16	0.82
Construction Fugitive Dust			29.20	3.15			
Total On-site	55.60	3.26	30.02	3.92	86.40	0.16	0.82
Off-site Hauling							
Off-site Hauling: Trucks	46.07	0.61	0.99	0.49	2.61	0.09	0.27
Off-site Hauling: Trucks Fugitive Dust			52.62	12.92			
Off-site Hauling: Rail	3.96	0.15	0.09	0.08	1.43	0.01	0.09
Total Off-site	50.03	0.76	53.70	13.49	4.04	0.09	0.36
Daily Total	4.02	83.72	17.41	90.44	0.25	1.18	0.00

Table 5.7 Conservative Removal Alternative Daily Emissions, Pounds/Day with Mitigation

Activity	NO_x	ROG	PM_{10}	$PM_{2.5}$	CO	SO_x	DPM
Peak Daily On-site, NO_x + ROG	58.86						
Peak Daily Off-site, NO_x + ROG	50.79						
Peak Daily, NO_x + ROG	109.65						

Notes: Fugitive dust is not utilized for daily thresholds, so it is not shown in the daily summary. Also includes the use of Tier 4 engines as part of mitigation under impact AQ.3.

Table 5.8 Conservative Removal Alternative Project Construction Emission Thresholds within the County Summary with Mitigation

Pollutant	SLOCAPCD Thresholds			Project Construction Only		Project Construction Change Over Baseline	
	Daily Pounds	Quarterly		Daily, pounds	Quarterly, tons	Daily, pounds	Quarterly, tons
		Tier 1 tons	Tier 2 tons				
ROG + NO_x	137	2.5	6.3	141.38	3.59	-444	-22.6
Diesel Particulate Matter	7.0	0.13	0.32	1.28	0.04	-0.05	-0.02
Fugitive Dust Particulate Matter (PM_{10})	-	2.5	-	-	2.32/1.70*	-	-4.06/ 1.58*

Notes: * Total on-site plus off-site/on-site only.
Source is CalEEMod. See Appendix B for CalEEMod output files and more detailed calculations. Applicant report with modifications.

Note the emissions levels above include the use of the mitigation measures for dust control (MM AQ.1-1) and clean engines (MM AQ.3-1).

The emissions from construction activities changes from historical emissions would not exceed the SLOCAPCD thresholds for the daily or quarterly emissions of NO_x and ROG, or the daily or quarterly emissions of diesel particulate matter (DPM). The historical emissions operations of the refinery produced large amounts of NO_x and ROG and therefore there would be a net reduction in these emissions associated with the with alternative as well as with the Project.

Fugitive dust would also be below the thresholds (with mitigation). On-site only particulate emissions is not specifically delineated as a threshold by the SLOCAPCD; however, as the Nipomo Mesa experiences periods of particulate impacts that are severe, the potential contribution of the Project to these particulate levels is a potential issue. As there is an increase in on-site particulate emissions on-site and the area is very susceptible to particulate impacts historically, given the correct conditions, construction on-site particulate emissions could produce a significant impact. Therefore, MM AQ.1-1 and AQ.3-1 would be applicable.

See Section 4.11, Land Use and Planning, for a discussion of polices related to particulate emissions on the Nipomo Mesa.

Biological Resources
Under this alternative, additional construction would occur to remove the additional belowground facilities. Soil remediation and associated grading would take place to a greater extent than the Project. Under impacts BIO.1 through BIO.11 related to protected species and habitat impacts, impacts would be similar but greater than the Project as more soil movement and grading would occur. Mitigation measures associated with impacts BIO.1 though BIO.11 would still apply.

Impacts related to ESHA and ESHA policies (BIO.12, BIO.15) would still apply as some areas that would be additionally disturbed under this alternative may have ESHA that could be impacted, and most likely more areas could be impacted. Mitigation measure BIO.12-1 would still apply.

Impacts related to protected trees (BIO.16) would apply as some areas that would be required to be additionally disturbed under this alternative may have trees that could be impacted and as more areas would be impacted, the potential for impacts to protected trees would be greater. Mitigation measure BIO.16-1 would still apply.

Impacts related to wetlands, species movement and habitat conservation plans (BIO.13, BIO.14 and BIO.17) would be similar to the Project under this alternative.

Cultural and Tribal Cultural Resources
Under this alternative, additional construction would occur to remove the additional belowground facilities. Soil remediation and associated grading would take place to a greater extent than the Project. Under impacts CT.2 through CT.4 related to archaeological resources, human remains, and tribal impacts, impacts would be similar but greater than the Project as more soil movement and grading would occur. Mitigation measures associated with impacts CT.2, CT.3, and CT.4 would still apply.

Impacts related to historical resources (CT.1) would be similar to the Project under this alternative.

Energy
For energy use under this alternative, impacts would increase over the Project, with greater diesel use under this alternative as more construction would be required. However, impacts EN.1 and EN.2 (energy use and standards) would be the same as those under the Project.

Geology and Soils
As with the Project, abandonment of the facilities under this alternative would entail removal of all belowground facilities and more grading. Under impacts GEO.1 and GEO.2, impacts related to geologic hazards would be similar under the Project and the Full Removal of Facilities Alternative.

For impact GEO.3, with respect to erosion, short-term erosion-related impacts associated with this alternative would be greater than under the Project, as more ground disturbance would occur. However, impacts associated with this alternative would similarly be less than significant, as erosion-related impacts would be reduced to less than significant levels with implementation of a SWPPP and associated BMPs.

Impact GEO.4, related to expansive soils, would be similar to the Project as expansive soils are not an issue at the site.

Impact GEO.5, related to the safety element, would also be similar to the Project for this alternative.

For impact GEO.6, with respect to mineral resources, the Project site does not overlie an area of valuable mineral resources. Therefore, impacts related to mineral resources would be similar under the Project and the Conservative Removal Alternative.

Greenhouse Gas Emissions
Under this alternative, construction activities would be greater than the Project in order to remove the additional facilities. Emissions of GHG at the SMR site associated with the demolition and remediation (impact GHG.1) and along the transportation routes would result from on-site activities (construction equipment, etc.), vehicles (truck deliveries of materials and hauling), and locomotives (to haul materials). Appendix C shows the GHG emissions associated with the alternative, both within County and within California. Total amortized GHG emissions (amortized over 25 years as per the SLOCAPCD Guidelines) totals 1,091 $MTCO_2e$ per year within California (442 $MTCO_2e$ amortized within the County) associated with only the demolition and remediation activities. This includes emissions at the Project site as well as emissions from transportation of materials.

The operations of the SMR historically have produced a substantial amount of GHG emissions, being one of the largest contributors to GHG emissions within the County as indicated in the environmental setting discussion in Section 4.8, Greenhouse Gas Emissions. There would therefore be a net reduction in GHG emissions within the County compared to the baseline for this alternative.

Impact GHG.2 (GHG policy) would be similar to the Project.

Hazards and Hazardous Materials
Under this alternative, impact HAZ.1 related to routine exposure would be similar to the Project as the potential for contaminated soils handling issues under impact HAZ.1 would be similar as the same amount of contaminated soils would be removed. MM HAZ.1-1 would still be applicable.

Potential accidental issues would be the same as the Project, with impact HAZ.2 being the same and MM HAZ.2-1 and MM HAZ.2-2 being applicable to this alternative.

Impact HAZ.4 and MM HAZ.4-1 related to sitewide soil sampling and remediation would still be applicable.

Impacts HAZ.3, HAZ.5, and HAZ.6 (schools, airports, emergency response) would be the same as the Project.

Impact HAZ.7 and MM HAZ.7-1 related to wildfire potential and mitigation would be the same as the Project, and MM HAZ.7-1 would still be applicable.

Hydrology and Water Quality
Under this alternative, all belowground facilities would be removed, and the site would be graded in most areas (except Area 3).

For impact HWQ.1, with respect to potential water quality impacts related to incidental spills of petroleum products and other pollutants during demolition activities, impacts would be incrementally greater under this alternative, as more demolition work would be required. However, similar to the Project, impacts under this alternative would be less than significant with mitigation and MM HAZ.2-1 would apply.

For impact HWQ.1, with respect to erosion, short-term erosion-related water quality impacts associated with this alternative would be greater than under the Project, as more ground disturbance would occur. However, impacts associated with this alternative would similarly be less than significant, as erosion-related water quality impacts would be reduced to less than significant levels with implementation of a SWPPP and associated BMPs.

For impact HWQ.2 related to seawater intrusion, groundwater quality impacts under the Full Removal of Facilities Alternative would be similar to the Project, as this alternative would not include new (i.e., in addition to the existing Slop Oil Line Release remediation) groundwater remediation activities, thus minimizing the potential for increased seawater intrusion. It is possible that new sources of groundwater contamination may be discovered, as would be the case with the Project and all other alternatives, and impacts of this alternative in that case would be similar to the Project.

For impact HWQ.3, HWQ.4, and HWQ.6, with respect to stormwater runoff rates, drainage patterns, flooding, and soil absorption, some beneficial impacts associated with this alternative would occur as more impervious surfaces would be removed, resulting in decreased stormwater runoff.

For impact HWQ.5, both the Project and this alternative would be completed outside a flood hazard area.

For impact HWQ.7, with respect to water supply and demand, this alternative would require a longer demolition and remediation schedule than the Project, which in turn would require more water for dust suppression. However, because the amount of water required for dust suppression for the Project is less than four percent of the recent years' water demand, incrementally more water required for dust suppression for this alternative would similarly result in beneficial impacts.

For impact HWQ.8, both the Project and this alternative would not be in an area subject to flood impacts. Therefore, impacts would be same under the Project and this alternative.

Land Use and Planning

Under this alternative, additional construction would occur to remove the additional belowground facilities. Under impacts LUP.1 related to dividing a community, impacts would be similar to the Project.

Impacts related to particulate emission policies in the short term (LUP.2) would still apply and would potentially increase as greater areas would be disturbed under this alternative. Mitigation measure AQ.1-1 and AQ.3-1 would still apply. Impacts related to particulate emission policies in

the long term (LUP.3) would still apply and be beneficial. Impacts related to other policies (such as coastal access) (LUP.4) would still apply and be the same as the Project.

Noise
Construction activities under this alternative would be similar to the Project, as the intensity of activities during the peak periods would be the similar to the Project. The same peak noise-producing equipment arrangements would occur in the same location as the Project (such as the tank removal, and the pulverizer and rock crusher), even though overall activities on the site would increase. Impact NOI.1 related to construction noise and MM NOI.1-1 and NOI.1-2 would still be applicable. Impacts NOI.2 and NOI.3 (vibration, airports) would also be applicable.

Public Services, Utilities and Service Systems
Under this alternative, additional construction would occur to remove the additional belowground facilities. Under impacts PSU.1 through PSU.8, related to fire, police, LMUSD, parks, water supplies, wastewater, and solid waste, impacts would be similar to the Project.

Recreation and Coastal Access
Under this alternative, additional construction would occur to remove the additional belowground facilities. Under impacts REC.1 and REC.2, related to parks and recreational facilities, impacts would be similar to the Project.

Transportation
Construction activities under this alternative would be somewhat greater than the Project, as the intensity of activities during the peak periods would be greater as more material would be removed than the Project. Impact TR.1 related to construction trips and MM TR.1-1 would still be applicable. Impacts TR.2 and TR.3 (trains, safety) would also be applicable.

Wildfire
As construction activities would occur similar to the Project, impacts WF.1, WF.2, and WF.3 (wildfires, infrastructure, slopes/landslides) would be similar and applicable, with MM HAZ.7-1 still applicable.

5.3 Summary of Project Impacts and Alternatives Comparison

The alternatives, as listed above, have been carried forward for use in the environmentally superior alternative analysis. Table 5.9 provides a summary of the Project impacts and mitigation measures and the impacts of the alternatives.

Table 5.9 Summary of Impacts and Mitigation Measures

Issue Area and Impact	Impact Number	Description	Project Impact Class	Mitigation Measures	Alternatives				
					No Project	Full Removal	Offshore Facilities Only	Additional Remediation	Conserv. Removal
Aesthetics	AE.1	Scenic Vistas	IV	None	IV↓	IV	IV	IV	IV
	AE.2	Visual Quality and Character	IV	None	IV↓	IV	IV	IV	IV
	AE.3	Light and Glare	IV	None	IV↓	IV	IV	IV	IV
Agricultural Resources	AG.1	Farmland Conversion	III	None	III	III	III	III	III
	AG.2	Williamson Act	III	None	III	III	III	III	III
	AG.3	Zoning Conflict	III	None	III	III	III	III	III
	AG.4	Indirect Conversion	II	AQ.1-1: Demolition & Remediation Activity Management Plan	II↓	II↑	II↑	II↑	II↑
Air Quality	AQ.1	Criteria Pollutants Construction	II	AQ.1-1: Demolition & Remediation Activity Management Plan	II↓	II↑	II↑	II↑	II↑
	AQ.2	Criteria Pollutants Operations	III	None	III	III	III	III	III
	AQ.3	Toxic Emissions	II	AQ.3-1: Clean Construction Equipment	II↓	II↑	II	II↑	II↑
	AQ.4	Odors	II	AQ.4-1: Odor Control and Purging Plan	II↓	II	II	II↑	II
	AQ.5	Clean Air Plan	II	AQ.5-1: Recordkeeping	II	II	II	II	II
Biological Resources	BIO.1	Special-Status Plants or Wildlife	II	BIO.1-1: Worker Environmental Awareness Program BIO.1-2: Biological Resources Adaptive Management & Monitoring Plan BIO.1-3 Habitat Restoration and Revegetation Plan BIO.1-4 Weed Management Plan	II↓	II↑	II↑	II↑	II↑
	BIO.2	Nipomo Mesa Lupine	II	BIO.2-1: Lupine Surveys	II↓	II↑	II↑	II↑	II↑

Table 5.9 Summary of Impacts and Mitigation Measures

Issue Area and Impact	Impact Number	Description	Project Impact Class	Mitigation Measures	Alternatives				
					No Project	Full Removal	Offshore Facilities Only	Additional Remediation	Conserv. Removal
				BIO.2-2: Lupine Avoidance BIO.2-3: Habitat Creation					
	BIO.3	CRPR 1-4 Plant Species	II	BIO.3-1: Plant Surveys BIO.3-2: Plant Salvage BIO.3-3: Habitat Creation BIO.3-4: Habitat Creation	II↓	II↑	II↑	II↑	II↑
	BIO.4	Monarch Butterfly	II	BIO.4-1: Butterfly Surveys	II↓	II↑	II↑	II↑	II↑
	BIO.5	Western Bumble Bee	II	BIO.5-1: Bee Surveys & Avoidance Measures	II↓	II↑	II↑	II↑	II↑
	BIO.6	Red-legged Frog	II	BIO.6-1: Frog Measures	II↓	II↑	II↑	II↑	II↑
	BIO.7	Legless Lizard	II	BIO.7-1: Lizard Surveys	II↓	II↑	II↑	II↑	II↑
	BIO.8	Nesting Birds	II	BIO.8-1: Nesting Bird Surveys & Avoidance BIO.8-2: Owl Surveys	II↓	II↑	II↑	II↑	II↑
	BIO.9	Roosting Bats	II	BIO.9-1: Bat Surveys and Measures	II↓	II↑	II↑	II↑	II↑
	BIO.10	American Badgers	II	BIO.10-1: Badger Surveys & Relocation	II↓	II↑	II↑	II↑	II↑
	BIO.11	Dune Lupine/Scrub	II	BIO.11-1: Coastal Dune Scrub Avoidance	II↓	II↑	II↑	II↑	II↑
	BIO.12	ESHA	II	BIO.12-1: ESHA Protection Plan	II↓	II↑	II↑	II↑	II↑
	BIO.13	Wetlands	III	None	III	III	III	III	III
	BIO.14	Species Movement	II	BIO.4-1, BIO.5-1; BIO.6-BIO.7-1, BIO.8-1, BIO.8-2, BIO.9-1, BIO.10-1	II↓	II↑	II↑	II↑	II↑
	BIO.15	ESHA Policies	II	BIO.12-1: ESHA Protection Plan	II↓	II↑	II↑	II↑	II↑
	BIO.16	Protected Tress	II	BIO.16-1: Tree Avoidance and Replacement	III	III	III	III	III

Table 5.9 Summary of Impacts and Mitigation Measures

Issue Area and Impact	Impact Number	Description	Project Impact Class	Mitigation Measures	Alternatives				
					No Project	Full Removal	Offshore Facilities Only	Additional Remediation	Conserv. Removal
	BIO.17	Habitat Conservation Plans	III	None	III	III	III	III	III
	BIO Marine. 1-1	Black Abalone	I	Alt-Fullremoval-BioMarine.1-1 Preconstruction Survey for Black Abalone	NA	I	I	NA	NA
Cultural and Tribal Cultural Resources	CT.1	Historical Resources	III	None	III	III	III	III	III
	CT.2	Archaeological Resources	II	CT.2-1: Archaeologists CT.2-2: Archaeological Monitors CT.2-3: Monitoring & Discovery Plan CT.2-4: Inadvertent Discoveries CT.2-5: Worker Environmental Awareness Program	II↓	II↑	II↑	II↑	II↑
	CT.3	Unknown Human Remains	II	CT.3-1: Discovery of Human Remains	II↓	II↑	II↑	II↑	II↑
	CT.4	Tribal Resources	II	CT.4-1: Chumash Tribal Monitors CT.4-2: Archaeological & Tribal Monitoring	II↓	II↑	II↑	II↑	II↑
Energy	EN.1	Energy Use and Supplies	III	None	III	III	III	III	III
	EN.2	Compliance with Energy Standards	III	None	III	III	III	III	III
Geology and Soils	GEO.1	Unstable Earth Conditions	III	None	III	III	III	III	III
	GEO.2	Earthquake Fault Zone	III	None	III	III	III	III	III
	GEO.3	Soil Erosion	III	None	III	III	III	III	III

Table 5.9 Summary of Impacts and Mitigation Measures

Issue Area and Impact	Impact Number	Description	Project Impact Class	Mitigation Measures	Alternatives				
					No Project	Full Removal	Offshore Facilities Only	Additional Remediation	Conserv. Removal
	GEO.4	Structures on Expansive Soil	III	None	III	III	III	III	III
	GEO.5	Safety Element	III	None	III	III	III	III	III
	GEO.6	Mineral Resources	III	None	III	III	III	III	III
Greenhouse Gas Emissions	GHG.1	GHG Emissions	IV	None	IV	IV	IV	IV	IV
	GHG.2	Compliance with GHG Plans	III	None	III	III	III	III	III
Hazards and Hazardous Materials	HAZ.1	Routine Hazards	II	HAZ.1-1: Contaminated Soil Management Plan	II	II	II	II↑	II
	HAZ.2	Upset Hazards	II	HAZ.2-1: Spill Response Planning HAZ.2-2: Asbestos and Lead Handling Plan	II	II↑	II↑	II	II
	HAZ.3	Hazards Proximate to Schools	III	None	III	III	III	III	III
	HAZ.4	Listed Hazard Sites	II	HAZ.4-1: Sitewide Sampling and Remediation Plan	II	II	II	II	II
	HAZ.5	Proximity to Airport	III	None	III	III	III	III	III
	HAZ.6	Impair Emergency Response	III	None	III	III	III	III	III
	HAZ.7	Wildfire Risks	II	HAZ.7-1: Fire Response Planning	II	II↑	II↑	II	II
Hydrology and Water Quality	HWQ.1	Degrade Surface or Groundwater Quality	II	HAZ.2-1: Spill Response Planning	II↓	II↑	II↑	II↑	II↑
	HWQ.2	Groundwater Quality	III	None	III	III	III	III	III
	HWQ.3	Stormwater Capacity	III	None	III	IV	III	III	IV
	HWQ.4	Soil Adsorption	III	None	III	IV	III	III	IV
	HWQ.5	100-year Flood Zone	III	None	III	III	III	III	III
	HWQ.6	Drainage patterns	III	None	III	IV	III	III	IV

Table 5.9 Summary of Impacts and Mitigation Measures

Issue Area and Impact	Impact Number	Description	Project Impact Class	Mitigation Measures	Alternatives				
					No Project	Full Removal	Offshore Facilities Only	Additional Remediation	Conserv. Removal
	HWQ.7	Water Service Provider	IV	None	IV	IV	IV	IV	IV
	HWQ.8	Flooding Losses	III	None	III	III	III	III	III
Land Use and Planning	LUP.1	Divide a Community	III	None	III	III	III	III	III
	LUP.2	Policy Conflict: Short-Term Particulate	I	AQ.1-1: Demolition & Remediation Activity Management Plan AQ.3-1: Clean Construction Equipment	I↓	I↑	I↑	I↑	I↑
	LUP.3	Policy Conflict: Long-Term Particulate	IV	None	IV	IV	IV	IV	IV
	LUP.4	Policy Conflict: Coastal Access	III	None	III	III	III	III	III
Noise	NOI.1	Noise Increases	II	NOI.1-1: Nighttime Activities Limits NOI.1-2: Construction Noise Control Measures	II↓	II↑	II	II↑	II
	NOI.2	Vibration	III	None	III	III	III	III	III
	NOI.3	Airport Proximity Noise	III	None	III	III	III	III	III
Public Services, Utilities and Service Systems	PSU.1	Fire Services	III	None	III	III	III	III	III
	PSU.2	Police Services	III	None	III	III	III	III	III
	PSU.3	LMUSD	III	None	III	III	III	III	III
	PSU.4	Park Facilities	III	None	III	III	III	III	III
	PSU.5	Water, Utilities	III	None	III	III	III	III	III
	PSU.6	Water Supplies	III	None	III	III	III	III	III
	PSU.7	Wastewater	III	None	III	III	III	III	III
	PSU.8	Solid Waste	III	None	III	III	III	III	III
Recreation and Coastal Access	REC.1	Parks	III	None	III	III	III	III	III
	REC.2	Rec Facilities	III	None	III	III	III	III	III

Table 5.9 Summary of Impacts and Mitigation Measures

Issue Area and Impact	Impact Number	Description	Project Impact Class	Mitigation Measures	Alternatives				
					No Project	Full Removal	Offshore Facilities Only	Additional Remediation	Conserv. Removal
Transportation	TR.1	Vehicle Miles Traveled	II	TR.1-1: Construction Traffic Management Plan	III↓	II↑	II↑	II↑	II↑
	TR.2	Train Trips	III	None	III	III	III	III	III
	TR.3	Roadway Safety	III	None	III	III	III	III	III
Wildfire	WF.1	Exacerbated Wildfire Risks	II	HAZ.7-1: Fire Response Planning	II	II↑	II↑	II	II
	WF.2	Infrastructure Installations	III	None	III	III	III	III	III
	WF.3	Slope and Landslide Fire Risks	III	None	III	III	III	III	III

Notes: ↓ = decrease in severity; ↑ = increase in severity. Class I – significant and unavoidable; Class II – significant but mitigable; Class III – less than significant; Class IV – Beneficial. Generally, all Class III impacts are considered similar and are not assigned arrows indicating increase or decrease in severity.

5.4 Environmentally Superior Alternative

This section summarizes the environmental advantages and disadvantages associated with the Project and the alternatives evaluated above. Based upon this discussion, the environmentally superior alternative is selected as required by CEQA. The CEQA Guidelines Section 15126.6(e)(2), state that if the environmentally superior alternative is the No Project Alternative, then the next most environmentally preferred alternative from among the other alternatives must also be identified.

CEQA does not provide specific direction regarding the methodology of comparing alternatives and the Project. Each project must be evaluated for the issues and impacts that are most important; this will vary depending on the project type and the environmental setting. Issue areas with significant and unavoidable (Class I) long-term impacts are generally given more weight in comparing alternatives. Impacts that are short term (e.g., construction-related impacts) or those that can be mitigated to less than significant levels are generally considered to be less important.

CEQA indicates 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, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly*. (Section 15126.6)

The advantages and disadvantages of each of the alternatives not eliminated in Section 5.1 are discussed below compared to the Project and shown in Table 5.3.

5.4.1 No Project Alternative Comparison

The No Project Alternative would involve the Project not moving forward, which means that the SMR would remain in place with no operations. Some activity would be required for maintenance. In addition, remediation of the site would continue as the Central Coast Water Board has regulatory requirements related to cleaning up a contaminated site and the No Project Alternative assumes that remediation of contaminated soils *"…would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services*" (CEQA Section 15126.6).

Some activities would continue into the future even under the No Project Alternative, but at a lower level than the Project. This would result in a reduction of air emissions, a reduction in potential impacts to biology, geology and soils, due to less soil movement, and some reduction in noise levels due to less activities and VMT related to traffic. There would be fewer aesthetic benefits as some aboveground infrastructure would remain not required to be removed to support remediation. However, all of these issues are less than significant with mitigation. The one significant and unavoidable impact, related to short-term particulate generation on the Nipomo Mesa under Land Use (impact LUP.2), would continue with this alternative, but to a less extent as most likely less soil disturbance would occur.

As the removal of the contaminated soil would be a regulatory requirement, and leaving the aboveground infrastructure would make this difficult, this alternative would not achieve most of the Project objectives (see Section 2.1, in the Project Description) related to removing aboveground facilities and achieving soil remediation.

5.4.2 Full Removal of Facilities Alternative Comparison

This alternative would involve removing all of the materials that are proposed to be left behind as part of the Project (except for facilities required for regulatory issues, such as groundwater contamination remediation systems). This would involve most likely a longer duration of activities.

Activities would continue longer into the future, but at a peak level that would be similar to the Project. This would result in similar impacts related to air emissions, but with a slight increase in severity for long-term health risk as the activities would continue for a longer period of time. Increased particulate emissions on the Nipomo Mesa would also occur for a longer period of time than the Project, although peak levels may be similar. As more activity would be conducted, slightly more energy use would be required. Impacts related to soils disturbance, including biology, geology and soils, and hydrology, would increase slightly over the Project. Impacts to hazards due to spills would increase slightly as more activities would be conducted and more infrastructure removed. Noise would continue for longer duration, which would be a slight increase in severity, but peak levels would most likely be similar. Traffic would increase slightly as more activities and materials would be transported. Minor increases in impacts related to wildfire would occur due to the increased activities off of the Project site. Aesthetic benefits would be similar to the Project.

However, all of these issues would be less than significant with mitigation. The one significant and unavoidable impact, related to short-term particulate generation on the Nipomo Mesa under Land Use (impact LUP.2), would continue with this alternative and to a greater extent. This alternative would achieve most or all of the Project objectives.

5.4.3 Removal of Offshore Facilities Alternative Comparison

This alternative would involve removing the wastewater treatment outfall line, which crosses the beach areas and extends offshore, in addition to those efforts described for Project. This would most likely involve a longer duration of activities, or at least periods of activities that might be more intense than some of the equivalent periods of the Project as multiple onshore activities could occur at the same time; peak levels would be similar to the Project. This alternative would also involve construction activities in the marine environment.

With peak levels expected to be similar to the Project, similar impacts related to air emissions would result. As the additional activities would be related to removal of the wastewater outfall located farther away from receptors than Project activities, the increased duration would have minimal impact on health risk. Increased particulate emissions on the Nipomo Mesa would also occur for a longer period of time than the Project, although peak levels may be similar. Increased activity would be expected to require, slightly more energy use. Impacts related to soils

disturbance, including biology, geology and soils, and hydrology, would increase over the Project as more work would be conducted near the beach, outside of the SMR site limits, to remove the outfall pipeline. This alternative includes the potential for hazardous materials spills into the marine environment which would not exist with the Project, resulting in an increase in hazardous materials impacts. Traffic would increase slightly as more activities and materials would be transported. Minor increases in impacts related to wildfire would occur due to the increased activities off of the Project site. Aesthetic benefits would be similar to the Project.

The potential biological impact to the black abalone would be significant and unavoidable under this alternative, and this impact would not exist with the Project. The other significant and unavoidable impact, related to short-term particulate generation on the Nipomo Mesa under Land Use (impact LUP.2), would continue with this alternative and to a greater extent. All other issues would be less than significant with mitigation. This alternative would achieve most or all of the Project objectives.

5.4.4 Additional Remediation and Cleanup Alternative Comparison

This alternative would involve removing contaminated soils to a different level than the Project. This would involve most likely a longer duration of activities.

Activities would continue longer into the future, but at a peak level that would be similar to the Project. Increased soil transportation and removal of contaminated soils would take longer under this alternative. Peak activities would be similar. This would result in similar impacts related to air emissions, but with a slight increase in severity for long-term health risk as the activities would continue for a longer period of time. Increased particulate emissions on the Nipomo Mesa would also occur for a longer period of time than the Project, although peak levels may be similar. As more activity would be conducted, slightly more energy use would be required. Impacts related to soils disturbance, including biology, geology and soils, and hydrology, would increase over the Project as more work would be conducted. More contaminated soils would be handled, so a slight increase in contaminated soils handling impacts would occur. Noise would continue for longer duration, which would present noise impacts to nearby areas for a longer duration, but peak levels would be similar. And additional traffic trips would be required for a longer duration, which would present the traffic impacts over a longer term. Aesthetic benefits would be similar to the Project.

However, all of these issues would be less than significant with mitigation. The one significant and unavoidable impact, related to short-term particulate generation on the Nipomo Mesa under Land Use (impact LUP.2), would continue with this alternative and to a greater extent. This alternative would achieve most or all of the Project objectives.

5.4.5 Conservative Removal Alternative Comparison

This alternative would involve removing all of the aboveground and belowground infrastructure and grading and revegetating/vegetating a larger percentage of the site than the Project. This would involve an increase in the intensity of activities as this alternative assumes a similar timeframe as the Project along with an increase in the equipment use.

Activities would continue but with a greater intensity, the peak level of activities would also increase compared to the Project. This would result in increased impacts related to air emissions. Increased particulate emissions on the Nipomo Mesa would also occur compared to the Project. As more activity would be conducted, slightly more energy use would be required. Impacts related to soils disturbance, including biology, geology and soils, and hydrology, would increase over the Project. Noise would potentially increase, although the peak day of activities would most likely be similar to the Project as the noisiest equipment would be utilized a similar amount in this alternative and in the Project but would occur more often with this alternative. Additional traffic trips would be required as more material would be removed, increasing traffic impacts. Aesthetic benefits would be similar to the Project.

However, all of these issues would be less than significant with mitigation. The one significant and unavoidable impact, related to short-term particulate generation on the Nipomo Mesa under Land Use (impact LUP.2), would continue with this alternative and to a greater extent. This alternative would achieve most or all of the Project objectives.

5.4.6 Alternative Comparison Summary and Conclusion

All of the alternatives present a wide range of potential activities at the site, from a minimal disturbance of existing infrastructure but still achieving the required regulatory soil remediation (No Project Alternative) to the full removal of all infrastructure not required for regulatory purposes (Full Removal Alternative). The goal of the alternatives analysis under CEQA is the reduction in the severity or elimination of significant and unavoidable impacts.

None of the alternatives would eliminate or reduce the severity of the significant and unavoidable short-term land use impact related to the creation of particulate emissions on the Nipomo Mesa. Most of the alternatives would actually increase either the level of particulate or the duration of particulate emissions. As the Project has the lowest severity associated with the potential particulate impacts, and the Project would achieve the Project objectives, the Project is considered the environmentally superior alternative. The No Project Alternative would also keep particulate emissions to a minimum but may introduce feasibility issues related to achieving soil remediation as not all of the aboveground infrastructure would be removed and therefore may not achieve the Project objectives.

Note that all other alternatives, except for the No Project Alternative, while not presenting CEQA advantages in reducing significant and unavoidable impacts (see beneficial discussion below), also achieve the Project objectives.

5.5 Long-Term Beneficial Impacts

The environmentally superior alternative analysis above is focused primarily on alternatives that could result in elimination or a reduction in the severity of significant and unavoidable impacts, as per CEQA. Impacts that are less than significant or beneficial usually do not come into play for the determination of the environmentally superior alternative. However, in order to provide full

disclosure to the public and the decision makers, this section briefly summarizes the potential beneficial impacts associated with the long-term aspects of the Project.

Most projects that require CEQA are development-type projects, where facilities are being installed or operations of an existing facility are being expanded. For a project where demolition of an existing facility is proposed as the project, CEQA normally does not identify extensive impacts as the baseline is usually greater than the effects of the project, particularly in the long-term, post-construction period when the historical operations will have ceased, and the facility has been removed.

There are a number of issues areas where the Project would produce beneficial impacts over the long term. There are also some issues areas that produce benefits both in the short term (during construction), and in the long term as well. Issue areas producing benefits in both the short and long terms, and that do not have other aspects of their impacts which require mitigation or are not beneficial, are defined in this EIR as a Class IV beneficial impact. These are listed below and called out as Class IV beneficial impacts in their respective sections:

- Aesthetics due to an elimination of the SMR structures in the coastal zone and visible from Highway 1 and other areas;
- GHG due to reduction in operational GHG emissions; and
- Hydrology and Water Quality due to reductions in groundwater use.

Issue areas and impacts that are identified as long-term beneficial impacts but that do have some short-term impacts are not identified as Class IV but are discussed in each issue area and are listed below:

- Air Quality; operational criteria pollutant emissions, toxic emissions and odors would be reduced in the long term, but would occur in the short term related to construction;
- Hazardous Materials due an elimination of contaminated soils and upset hazards, would be reduced in the long term, but would occur in the short term related to construction;
- Land use impacts are beneficial in the long term due to the elimination and associated reduction in on-site particulate emissions on the Nipomo Mesa, but would increase in the short term (resulting in a Class I Land Use impact);
- Noise reduction due to the elimination of the operating refinery noise, would be reduced in the long term, but would occur in the short term related to construction;
- Transportation would be reduced in the long term due to the elimination of truck trips from the SMR, but would occur in the short term related to construction; and
- Wildfire risks, due to the elimination of industrial facilities in a fire zone, would be reduced in the long term, but would occur in the short term related to construction.

5.6 Baseline Considerations

CEQA generally assigns the baseline to the period when the NOP is issued. That occurred in May 2023 for this Project, a period of four months after the SMR stopped receiving and processing crude oil and began decommissioning pipelines and storage tanks (under existing SLOCAPCD permits) and continued limited operations involving existing materials movement. CEQA allows for the selection of a baseline that addresses historically varying long-term operations (see Chapter 4.0), which is the baseline used in this analysis given the long-term history of operations. If the baseline had been selected as beginning at the time when the NOP was issued, the SMR would have had different, fewer operations ongoing ("reduced activities"). In order to provide full disclosure to the decision makers and the public, the selection of the "reduced activities" baseline would have changed the analysis in the following ways:

1. Air Quality: As the baseline would have had very limited air emissions, the Project air emissions over the baseline would be greater than analyzed in this EIR. Section 4.3, Air Quality, provides the air emissions levels for the "construction only" and this indicates that the thresholds would be exceeded for NO_x if the baseline was not included. This would have required additional mitigation in the form of Tier 4 final engines as opposed to Tier 4 interim (which only address DPM emissions). With the use of Tier 4 final construction equipment engines, all pollutants would have been below the thresholds and the impacts would remain less than significant with mitigation (the same as the current analysis).

2. Energy: Energy use would have increased over the baseline as the baseline would have very little energy use. However, as energy use would be associated with temporary construction and historical levels of energy use have been higher without causing any potential impacts, this impact would remain less than significant.

3. Greenhouse Gas Emissions: GHG emissions during construction would increase over the baseline. However, as construction emissions are amortized, the emissions levels of construction only (see Section 4.8, Greenhouse Gas Emissions) would be below the thresholds, and impacts would remain less than significant.

4. Hazards and Hazardous Materials: Hazards associated with the construction project would be limited to hazards associated with construction materials (diesel fuel, oils, etc.) and would be limited to potential impacts on site. Impacts would remain less than significant with mitigation.

5. Noise: As the baseline would not include operations of the SMR, the background noise levels would be lower, producing greater increases in noise from the construction activities over the baseline. However, mitigation measures identified are effective at reducing noise levels from construction, and even with the increases, the noise impacts would remain less than significant with mitigation.

6. Transportation: Transportation would increase over the baseline as the baseline would no longer have the trucks or rail trips from the SMR. However, CEQA transportation impacts are based on VMT thresholds which utilize employee trips and not truck activity, and employee trips would be below the 110 trips per day thresholds. For potential safety impacts, the Caltrans

data presented in Section 4.15, Transportation, indicates that accident rates along Highway 1, which include the historical SMR traffic, are acceptable and below the average accident rates for similar highways within California. Therefore, as the Project would not increase vehicle trips above the historical SMR levels, accident rates with the Project and a "reduced activities" baseline would also be acceptable. Rail traffic would increase over the baseline (which would have some rail activity due to movement of existing coke piles) but would not exceed levels examined in previous EIRs that concluded rail safety was not an impact. Therefore, impacts would remain less than significant with mitigation.

7. All other issue areas would have the same or similar impacts as the Project discussed in this EIR.

As discussed above, even with the selection of a "reduced activities" baseline, impacts would remain similar to the current analysis and there would not be any additional significant and unavoidable impacts.

5.7 References

California Department of Toxic Substances Control (DTSC). 2023. DTSC EnviroStor site, Guadalupe Oil Field (40130002). Available at: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=40130002. Accessed June 2023.

County of San Luis Obispo (County). 1997. San Luis Obispo County, Unocal Avila Beach Cleanup Project, Final Environmental Impact Report, SCH # 1998100275. October 1997.

County. 1998. San Luis Obispo County, Guadalupe Oil Field Remediation and Abandonment Project, Final Environmental Impact Report, SCH #1996051053. March 1998.

Phillips 66. 2021. Sampling and Analysis Plan Remedial Soil Excavation – Northern Inactive Waste Site. Available at: https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/3209903120/SL203121248.PDF.

Regional Water Quality Control Board (Central Coast Water Board). 1998. California Regional Water Quality Control Board Central Coast Region, Cleanup Or Abatement Order (CAO) NO. 98-38 Concerning Union Oil Company of California at Guadalupe Oil Field, San Luis Obispo County, Amended November 6, 1998. Available at: https://documents.geotracker.waterboards.ca.gov/regulators/deliverable_documents/6310017466/CAO%2098-38_amended%2011-6-98.pdf.

Tenera Environmental Services/Stantec Consulting Services (Tenera/Stantec). 2023. Phillips 66 Company Santa Maria Refinery Offshore Outfall Line and Diffuser, 2022 Annual Dive Inspection and Observations. Prepared for Phillips 66 Santa Maria Refinery.