

Chapter 5

Comparison of Alternatives

5.1 Introduction

As described in more detail in Section 1.6.7, The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) present a reasonable range of feasible alternatives to the Proposed Project. Section 15126.6(a) of the State CEQA Guidelines requires that an “EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, 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.” Three alternatives were considered during the preparation of this Draft EIR and this chapter presents a comparison of those alternatives. The comparison is based on the environmental resource analyses in Chapter 3 of this Draft EIR. For each alternative, the comparison identifies the resource areas in which either a potentially significant impact could occur unless mitigation is incorporated, or significant and unavoidable impacts would occur.

As the alternatives to the Proposed Project are intended to avoid or substantially lessen one or more of the significant adverse effects of the Project, this chapter focuses on the comparative merits of the alternatives with respect to those environmental resource areas which could experience significant impacts of the Proposed Project.

Alternatives in this Draft EIR have been analyzed (see Chapter 3) at a level that provides sufficient information about the environmental effects of each alternative for comparative purposes and to allow for informed decision-making. Several other alternatives were considered, but because they were rejected from further consideration (see Section 5.4) they are not included in the comparison of alternatives (Section 5.3).

5.2 Project Alternatives

The Proposed Project’s purposes and objectives (Section 2.3.2) formed the basis for developing potential alternatives. Key purposes of the Proposed Project are to provide Southern California’s construction industry with a robust supply chain for a cement binder (ground granulated blast-furnace slag [GGBFS]) and to use that GGBFS in combination with Ecocem’s proprietary technologies to help the State of California meet its net-zero emission targets for all cement used in the State. GGBFS is a construction binder that requires a lower per-unit energy consumption during its production (and thus, has a lower carbon footprint) than traditional Portland cement (see Section 2.2.1 of Chapter 2).

1 The three alternatives to the Proposed Project (Table 5-1) are:

- 2 • Alternative 1 – No Project;
- 3 • Alternative 2 – Reduced Project; and
- 4 • Alternative 3 – Product Import Terminal.

5 Table 5-1 presents the main components of each alternative and how they differ from
6 those of the Proposed Project.

7 **Table 5-1: Summary of Proposed Project and Alternatives at Full Operation**

Activity	Alternative			
	Proposed Project	Alt 1: No Project	Alt. 2: Reduced Project	Alt. 3: Product Import Terminal
Granulated Blast Furnace Slag (GBFS) Import (metric tons/year)	800,000	0	540,000	0
Gypsum Imports (metric tons/year)	39,500	0	26,700	0
Ground Granulated Blast Furnace Slag (GGBFS) Production/Import (metric tons/year)	775,000	0	522,950	775,000*
Vessel Calls per year	24	0	16	23
Gypsum truck trips, one-way trips/year	3,950	0	2,670	0
Product truck trips, one-way trips/year	62,000	0	41,836	62,000
Total Truck Trips, one-way trips/year	65,950	0	44,506	62,000
Employees	26	0	18	12

* Includes import of non-GGBFS products such as Portland cement, fly ash, and pozzolans.

8 In addition to these three alternatives considered and evaluated further in Chapter 3 and
9 below, five other alternatives were considered but eliminated from further evaluation.
10 These are presented and evaluated in Section 5.4.

11 **5.2.1 Alternative 1 – No Project Alternative**

12 The No Project Alternative (Alternative 1) required by CEQA represents what would
13 reasonably be expected to occur in the foreseeable future if the Proposed Project were not
14 approved. Under this alternative, the Project site would remain largely unused at the
15 backlands of Berth 192-194. Like the CEQA Baseline, the activities under the No Project
16 Alternative (Alternative 1) are considered negligible in the foreseeable future as no future
17 development has been permitted or approved. The No Project Alternative (Alternative 1)
18 would not meet any of the Proposed Project’s objectives.

19 **5.2.2 Alternative 2 – Reduced Project**

20 In the Reduced Project Alternative (Alternative 2), all of the elements of the Proposed
21 Project described above would be built, but the capacity of the facility to produce
22 GGBFS would be reduced. However, the logistics of stockpiling granulated blast-furnace
23 slag (GBFS) delivered by oceangoing vessels, and gypsum delivered by trucks, and the
24 economies that could arise from simply operating the mill fewer hours per day mean that
25 it is likely that the Reduced Project Alternative (Alternative 2) would construct a facility
26 very similar in size and configuration to the Proposed Project. The Reduced Project

1 Alternative (Alternative 2) would meet all of the Proposed Project’s objectives except
2 that because it would only produce 523,000 tons of GGBFS per year rather than the
3 Proposed Project’s 775,000 tons, it would not meet the objective of maximizing
4 production of one of the lowest-carbon binders.

5 **5.2.3 Alternative 3 – Product Import Terminal**

6 In the Product Import Terminal Alternative (Alternative 3, see Section 2.7.1.3), there
7 would not be any processing of raw materials and the GGBFS finished product would
8 come from overseas by vessel. The finished powder product that is produced overseas
9 would be transported by ocean-going bulk vessels to Berth 191, where it would be off-
10 loaded to storage silos by the vacuum conveyor system. The dry bulk vessels and
11 unloading operation for the Product Import Terminal Alternative (Alternative 3) would
12 be different from those in the Proposed Project as the bulk vessels would be of a slightly
13 different type, needing to be unloaded by a vacuum system rather than by ship-borne
14 gear, and the product would be moved on site through a vacuum system, not conveyor
15 belts. Accordingly, the engines and emissions characteristics of the vessels, and the
16 unloading procedures, would be somewhat different from those of the Proposed Project.
17 The operations would be essentially the import and storage of the product and the loading
18 of customer trucks. The scale of construction would be similar to the Proposed Project in
19 terms of ground improvements, but the actual structures and site configuration would be
20 simpler and thus require a less intensive construction effort (see Figure 2-8 in Chapter 2).
21 The product would be loaded onto customer trucks in the same way as described for the
22 Proposed Project, as the product would be essentially the same, i.e., a fine powder.

23 In addition to importing GGBFS, the Product Import Terminal Alternative (Alternative 3)
24 would be expected to handle a variety of cementitious products of the types handled by
25 other cement import terminals at Southern California ports (e.g., Portland cement, fly ash,
26 ground natural pozzolan) in order to lower the risk of not being able to secure large
27 cargoes of GGBFS, given the uncertainties in foreign supplies of that material. As a
28 result, the Product Import Terminal Alternative (Alternative 3) would likely supply lower
29 quantities of low-carbon binder than the Proposed Project and Reduced Project
30 Alternative (Alternative 2), and would likely import other, higher-carbon construction
31 binders. Accordingly, the Product Import Terminal Alternative (Alternative 3) would not
32 meet the Proposed Project’s objectives related to maximizing supplies of low-carbon
33 binder, establishing a facility capable of producing a low-carbon binder at a deep-water
34 berth in Southern California, facilitating the future development of improved low-carbon
35 binders, and reducing the carbon footprint of the cement consumed in California.

36 **5.3 Alternatives Comparison**

37 **5.3.1 CEQA Alternatives Comparison**

38 Table 5-2 presents the Proposed Project and the alternatives and identifies the resource
39 areas where the Proposed Project or alternative(s) would result in an unavoidable
40 significant impact, as analyzed in Chapter 3; impacts are presented in more detail in
41 Table ES-2 and the summary tables in each resource section in Chapter 3.

42 As shown in Table 5-2, the Proposed Project, the Reduced Project Alternative
43 (Alternatives 2) and the Product Import Terminal Alternative (Alternative 3) would have
44 significant unavoidable impacts on air quality, greenhouse gases (GHG), and noise.

1 Alternative 1 (No Project Alternative) would have no significant impacts in any resource
 2 area.

3 **Table 5-2: Number of Unavoidable Significant Impacts by Alternative**

Environmental Resource Area	Proposed Project	Alternative 1 No Project	Alternative 2 Reduced Project	Alternative 3 Product Import Terminal
Air Quality	4	0	4	3
Greenhouse Gases	1	0	1	1
Noise	2	0	2	2

4 Notes:
 5 The analysis includes only project-level impacts after mitigation has been applied, not cumulatively
 6 considerable contributions to significant cumulative impacts.
 7 Alternatives eliminated from further consideration are not included.

8
 9 For air quality and meteorology, impacts were determined to be significant and
 10 unavoidable under the Proposed Project and Alternatives 2 and 3. The significant
 11 unavoidable impacts would be related to:

- 12 1) Regional nitrogen oxide (NO_x) emissions during operations: the Product Import
 13 Terminal (Alternative 3) emissions would exceed those of the Proposed Project,
 14 and the Reduced Project Alternative (Alternative 2) will have the least significant
 15 emissions of evaluated scenarios;
- 16 2) Particulate matter of less than 10 microns (PM₁₀) localized ambient air
 17 concentrations (24-hr and annual) related to operations: the Proposed Project
 18 would produce higher and more frequent ambient concentration exceedances of
 19 PM₁₀ than any of the alternatives for both the 24-hour and annual average time
 20 intervals. However, for the 24-hour averaged time interval, the Reduced Project
 21 Alternative (Alternative 2) has the second largest concentrations. and for the
 22 annual average, the Product Import Terminal Alternative (Alternative 3) has the
 23 second largest concentrations of PM₁₀; and
- 24 3) Particulate matter of less than 2.5 microns (PM_{2.5}) localized ambient air
 25 concentrations (24-hr) related to operations: the Proposed Project concentrations
 26 are larger than those of the Reduced Project Alternative (Alternative 2). The
 27 Product Import Alternative (Alternative 3) would not have exceedances above
 28 the threshold for PM_{2.5} 24-hr concentrations.

29 For GHG emissions, the Proposed Project, Reduced Project Alternative (Alternative 2),
 30 and Product Import Terminal Alternative (Alternative 3) would have significant and
 31 unavoidable impacts. The Proposed Project would have the highest amount of combined
 32 GHG emissions during construction and operations. The Product Import Terminal
 33 Alternative (Alternative 3) – because of its lower construction activity levels than the
 34 Proposed Project and Reduced Project Alternative (Alternative 2), and due to the shifting
 35 of binder production (and associated GHGs) to overseas – would emit the lowest amount
 36 of greenhouse gases under this CEQA analysis.

37 For noise, the Proposed Project, Reduced Project Alternative (Alternative 2), and Product
 38 Import Terminal Alternative (Alternative 3) would have significant and unavoidable
 39 impacts related to construction; the severity of the impacts are expected to be similar for
 40 these three scenarios.

5.3.2 Environmentally Superior Alternatives

Based on the above comparison, Alternative 1 (No Project Alternative) would have no impacts and is deemed to be the environmentally superior alternative. Under CEQA, if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. The Reduced Project Alternative (Alternative 2) impacts would be less severe than those of the Proposed Project, and in some cases lesser than The Product Import Terminal Alternative (Alternative 3). However, the Product Import Terminal Alternative (Alternative 3), because of its lower operational activity levels, would have overall the lowest severity of impacts related to noise, air quality and greenhouse gases. Accordingly, the Product Import Terminal Alternative (Alternative 3) is deemed to be the environmentally superior alternative.

5.4 Alternatives Considered But Not Further Evaluated

As discussed in Section 2.7.2, five alternatives were considered based on comments received on the Notice of Preparation (NOP) and during the preparation of this Draft EIR but were eliminated from inclusion and analysis because they would not meet most of the basic Proposed Project objectives, were deemed infeasible, or would be unable to avoid significant environmental impacts (CEQA Guidelines section 15126.6[c]).

5.4.1 Maximum Site Capacity Alternative

Description of Alternative

This alternative was suggested in a comment on the NOP issued for the Proposed Project. The comment did not provide any specifics of such an alternative, stating only, “No considerations are provided regarding the maximum production limits for the proposed single berth and immediate availability of three more berths for future production and expansion. Therefore, one alternative must be “Maximum Site Capacity” with all 4 berths listed and their maximum site processing capacity.” Lacking specifics, this Draft EIR assumes the commenter envisioned an alternative in which the wharf at Berth 191 is extended all the way to the northeast end of Berth 194, providing three more berths, in order to allow more oceangoing vessels to berth at once.

Construction of this alternative would require not only that the existing wharf at Berth 191 be repaired as proposed, but also that a new, 1,300-foot, pile supported wharf be constructed at Berths 192-194, resulting in a 1,900-ft-long wharf. That construction would require the reconstruction of the shoreline, placement of new shoreline protection (riprap), and some amount of clean-up dredging in the East Basin to provide adequate water depths at the new berths. Wharf construction would include the driving of approximately 700 piles as well as several thousand trips by materials delivery and haul trucks. In this alternative, as in the Proposed Project, oceangoing vessels would deliver GBFS to the processing facility on the adjacent backlands. In this alternative, however, up to 78 vessels per year would berth at the expanded Berths 191-194 wharf instead of the 26 vessels at Berth 191 under the Proposed Project (i.e., three times as many vessels; there would continuously be a vessel unloading at one of the berths). These vessels would provide the capacity to deliver up to 2,400,000 metric tons of GBFS per year.

Analysis of Alternative

This alternative does not avoid significant environmental impacts while adding minimal (if any) benefit in terms of meeting Project objectives. The addition of more berths would not materially increase the capacity of the Orcem (subsidiary of Ecocem Materials Ltd.) facility. This is because the primary factor limiting the Proposed Project's throughput is the amount of raw material milling capacity and storage space on the backlands, but this alternative would provide only a modest increase in backlands area (approximately one acre, see Figure 2-2). Accordingly, the landside stockpiles and processing facility described in the Proposed Project could not be expanded enough to handle the amounts of raw materials that the berths could supply. In addition, the construction of the additional wharf and the amount of clean-up dredging that would be necessary to provide adequate water depths in the East Basin would have substantially more environmental impacts than the Proposed Project without commensurate economic or societal benefits.

Although this alternative would meet the Project objectives, it would have substantially more environmental impacts than the Proposed Project, given the scale of wharf construction and clean-up dredging and the number of oceangoing vessels involved. This alternative was rejected from further analysis on the basis that it would not avoid or reduce any of the impacts of the Proposed Project while adding minimal (if any) benefit in terms of meeting Project objectives.

5.4.2 Rail-Based Product Distribution Alternative

Description of Alternative

This alternative was suggested in two similar comments on the NOP issued for the Proposed Project. One of the comments stated that, "*alternatives all should include construction of a railroad "industrial side-track" to the site. This would allow for closed hopper rail cars to transport the product from the terminal to other distribution points, such as cement mixing plants that are the likely delivery destinations for the product.*" The purpose of the alternative would be to reduce or eliminate truck transport of the GGBFS product, which the commenters assume would reduce the release of airborne particulates and reduce roadway congestion issues associated with truck transport.

Lacking more detail from the commenters, this Draft EIR assumes that such an alternative would include constructing a rail spur from the existing rail line that serves the Vopak liquid bulk terminal and the Pasha automobile terminal to the Project site. Given the presence of the Vopak tank farm and other facilities along the north and west of the Project site, the rail spur would have to access the Ecocem facility by running from the area of the Pasha gate on Water Street southward down Canal Street through Vopak's operating area to the southwestern corner of the Project site; any other alignment would involve excessively sharp curves exceeding safe railroad operating parameters. This alignment would require that a rail right-of-way outside the Ecocem entitlement area be negotiated and that permits for rail crossings of public streets be acquired. In addition to the construction of the rail spur, project construction would include constructing an on-site railcar loading facility, a railcar scale, and conveyors connecting the railcar loading facility to the product storage silos in the northwest portion of the project site. Operation of the alternative would involve the delivery and hauling of at least 20 railcars (covered hoppers) per day by Pacific Harbor Line, the short-line rail operator for the Port of Los Angeles.

Analysis of Alternative

There are three primary issues that render this alternative infeasible.

The first issue is that there is not enough room on the Project site to accommodate a railcar loading facility of sufficient size, as well as the Proposed Project. The size and configuration of the southwestern portion of the site would prohibit a single track long enough to accommodate 20 railcars per day (i.e., a 1,000-foot spur), since the southwestern edge of the site is only approximately 600 feet long; accordingly, two parallel spur tracks would need to be constructed. Those two spurs, along with the loading silo, the conveyor, and the scale would take up some of the area that the stockpile requires. If a single track were all that could be accommodated at the site, the loading spur would be less than 600 feet long. In that case, only 10-12 railcars could be accommodated at the loading facility, and Project operations would require two trains per day, each of at least 10 railcars, which would increase the operational expense and double the impacts associated with rail operations (e.g., diesel-related emissions, grade crossing delays, and noise) compared to a two-track facility. It is worth noting that construction of a rail loading facility, including the cost of the offsite rail line, would represent a substantial cost that could render the Proposed Project financially not viable.

The second, and most serious, issue is that very few of Orcem's potential customers – ready-mix plants throughout the five-county Southern California area – have rail access. Ready-mix plants in Southern California are mostly small-scale operations served by truck. Few are near existing rail facilities, and thus most could not utilize a rail-based cement supplier. Accordingly, even if rail service could be provided to the Orcem Berth 192-194 facility, the product loaded onto railcars could not be delivered to customers unless a second rail facility were to be constructed somewhere inland to transload the product from railcars to trucks. This double-handling and truck backhaul would transfer air quality and traffic impacts of the Proposed Project to other neighborhoods while adding the impacts of rail operations to the Wilmington area and increasing the cost of the product to end users.

Finally, Canal Street, down which the alignment of the rail spur would pass, lies within the Vopak operating area and is fenced off from public access. Adding an active rail line, assuming it was technically feasible, serving another nearby tenant would represent an operational disruption that cannot be assumed to be acceptable to Vopak.

Given the constraints of providing rail access and the infeasibility of delivering the GGBFS product to customers by rail, the Rail-Based Product Distribution Alternative is considered technically infeasible. Furthermore, because product could not be delivered to the majority of potential Southern California customers, this alternative would not meet the Project objectives related to providing Southern California with an alternative, low-carbon construction binder. Finally, this alternative would not avoid or reduce any of the impacts of the Proposed Project, but instead would displace them to other communities. Accordingly, this alternative was rejected from further consideration.

5.4.3 Covered Stockpile Alternative

Description of Alternative

This alternative was suggested in comments on the NOP issued for the Proposed Project. The alternative was proposed under the assumption that the stockpile would generate fine particulates that would be susceptible to wind erosion.

1 In this alternative the Proposed Project would be constructed and operated as described in
2 Section 2.5 except that fixed covers, likely in the shape of a dome, would be constructed
3 over the GBFS and gypsum stockpiles. Operational details of this alternative would be
4 the same as the Proposed Project.

5 **Analysis of Alternative**

6 This alternative is technically feasible, as covered structures are commonly used for dry
7 bulk material stockpiles that can be eroded by wind or rain. In the case of the Proposed
8 Project, the GBFS raw material is not susceptible to either wind or rain erosion and the
9 gypsum is not expected to be in place long enough, given its rapid turnover (see Section
10 2.5.1), to experience substantial erosion. As described in Section 2.5, GBFS has the
11 consistency of wet, coarse sand, and is therefore not likely to be mobilized by normal
12 winds or rain in the Port area. Furthermore, the Proposed Project includes a provision for
13 watering the GBFS and gypsum stockpiles in order to further minimize the possibility of
14 mobilization of particulates. That applied water would come largely from on-site storage
15 of treated stormwater and would therefore not represent a substantial new demand on the
16 region's water supplies.

17 Installation of a cover would add an estimated \$10 million to the cost of the Proposed
18 Project and would reduce the capacity of the stockpile somewhat (because of the space
19 requirements of the dome's foundations and supports). These factors would adversely
20 affect the project's financial feasibility. Furthermore, a cover would not avoid or
21 substantially reduce any significant environmental effects, given that the nature of the
22 raw materials and the structural and operational features of the Proposed Project (e.g.,
23 coarse, moist granular material, covered conveyors, enclosed loading facilities, a
24 stormwater capture and treatment system, and periodic watering, see Section 2.5.1)
25 would minimize escape of particulates. On that basis, therefore, this alternative was
26 rejected from further consideration.

27 **5.4.4 Other Uses Alternative**

28 **Description of Alternative**

29 This alternative was developed from comments on the NOP. The comment letter from
30 Dr. Clyde T. Williams (on behalf of Citizens Coalition for a Safe Environment) contains
31 the following material: *“Provide most-likely probable uses and developments for Berths
32 192-194, including total ban on any shipping uses in the future. As part of Project, assign
33 Berths 192-193 for future bulk liquid deliveries related to past considerations as oil
34 berths for the adjacent tank farm and replacement for other liquid bulk carrier berths.
35 Provide assignment/dedication of Berth 194 sole use to others adjacent to the north of the
36 Project site. Provide Alternative for development of backlands and Berths 192-193 for
37 raw materials delivery and product transport to other Pacific Coast ports (e.g., Prince
38 Rupert, Seattle, San Francisco/ Oakland/ Vallejo, and San Diego).*

39 *Provide alternative for full use of Berths 192-194 for adjacent use of berth spaces for
40 recreational or other maritime uses (better fire and earthquake preparedness) [sic].”*

41 The quoted material appears to suggest five mutually exclusive concepts for the use of
42 the Project site and adjacent land and water areas, including the waterfront adjacent to the
43 Project site:

- 44 1) No shipping at all;
- 45 2) A marine oil terminal (MOT), consistent with the PMP-designated land use;

- 1 3) Dedication of Berth 194 for unspecified users and uses;
- 2 4) A raw materials import terminal and finished product export terminal that
- 3 apparently would serve the entire west coast of North America; and
- 4 5) Recreational or maritime support uses.

5 It is unclear whether the proposed Ecocem facility would be included in any of the
6 concepts. This analysis evaluates the concepts under the assumption that any one of them
7 could be considered as an alternative to the Proposed Project.

8 The first concept, no shipping at all, is essentially the No Project Alternative (Alternative
9 1) that is considered in this Draft EIR, as the waterfront at Berths 192-194 currently
10 cannot berth any vessels larger than recreational boats. Accordingly, the Draft EIR
11 already includes that concept.

12 The second concept, to construct and operate a MOT, appears to be related to the PMP-
13 designated use of the Project site (liquid bulk). In order to fulfil this concept, a new
14 MOTEMS-compliant wharf to handle liquid bulk would need to be constructed, likely at
15 Berths 192-193, to support marine operations, and a new tank farm and supporting
16 infrastructure would be built on the backlands of Berths 192-194.

17 The third concept is unclear as to scope and intent, but presumably contemplates
18 assigning the “sole use” of Berth 194 to one of the entities “to the north of the Project
19 site.” Those are the WWL automobile import terminal, the USC Boathouse, Fire Station
20 49, and the Maritime Law Enforcement Training Center. It is not possible to describe the
21 construction and operation of that concept because the potential waterfront requirements
22 of each of those entities would differ substantially. However, this analysis assumes that
23 the three small uses (boathouse, fire station, training center) would require minor
24 construction of small docks and buildings and minor shoreline reconstruction. The auto
25 terminal would require a new wharf that would likely occupy the entire waterfront of
26 Berths 192-194, as well as extensive paving and small support buildings.

27 The fourth concept is not clearly enough stated in the comment to enable development of
28 an alternative for analysis under CEQA. Besides not specifying what raw materials would
29 be handled, it is unclear whether the commenter envisions a processing facility on the site
30 large enough to support such a large maritime operation (operation of three berths
31 alternative as described in Section 5.4.1), or a raw materials trans-shipment operation in
32 support of other processing facilities elsewhere, or a processing facility that would export
33 some sort of finished product by ship to other West Coast ports, or some other
34 configuration. Most likely, however, this concept would require extensive wharf and
35 backlands facilities, larger than the Proposed Project, and its operations would involve far
36 more vessel activity, although possibly less truck activity, than the Proposed Project.

37 The comment does not describe the fifth concept, “recreational or other maritime use”, in
38 any detail. However, it is reasonable to assume that the concept would develop the
39 waterfront at Berths 192 -194, which is not included in the Proposed Project, into marina
40 facilities or other non-cargo maritime uses such as shipyards for harbor craft construction
41 and repair, tugboat docking facilities, or other uses requiring waterfront property. The
42 nature and scale of construction would depend upon the use or uses selected for the
43 waterfront along Berths 192-194, but would likely include some shoreline
44 reconfiguration and reconstruction, the driving of piles, and the installation of some sort
45 of docks. The operation of this concept would be too speculative to describe at this point.

Analysis of Alternative

All of these concepts for project alternatives, with the possible exception of the fourth one, include elements that have no relationship to the Proposed Project and that would not contribute to achieving the Project's objectives.

As mentioned above, the first concept (no shipping) is already included as an alternative to the analysis as the No Project Alternative (Alternative 1). Accordingly, its inclusion as another alternative would not present a different set of impacts than those already analyzed in this Draft EIR. Furthermore, this concept would not achieve any of the objectives of the Proposed Project.

The second concept (marine oil terminal) does not include the cementitious materials facility that is the Proposed Project. The scale of construction that would be required would likely be greater than that of the Proposed Project, given the need for a new wharf compliant with California's Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) and seismically robust tankage. The operational activity would likely be somewhat less than the Proposed Project: although vessel activity would likely be similar, there would be no raw material processing and potentially fewer truck trips. Accordingly, it is not certain whether this concept would eliminate or reduce any of the impacts of the Proposed Project. Furthermore, the Port has since abandoned the concept of using the site for a liquid bulk facility and intends to amend the PMP from a liquid bulk designation to a dry bulk use, and in any case Orcem has not proposed or contemplated developing a MOT at the site. Finally, this concept would not meet any of the objectives of the Proposed Project.

The third concept (assign Berth 194 to adjacent entities) appears not to include a cementitious materials facility. In addition, as all of those entities have existing water access, it is unclear what purpose assigning sole use of Berth 194 to any of them would serve. Nevertheless, as an alternative to the Proposed Project the boathouse, the fire station, and the training center could have fewer impacts associated with construction as none of which would require substantial waterfront facilities. Those three entities would also have much smaller operational activities than the Proposed Project. The auto terminal could have substantial construction impacts associated with a new wharf and backlands facilities, and similar levels of operational activity as the Proposed Project in terms of the vessels would be substantially larger, and there would be substantial truck activity associated with automobile transport. Finally, no matter which of the neighboring entities was assigned to Berth 194, this concept would not achieve any of the objectives of the Proposed Project.

The fourth concept (raw materials delivery and product transport) would involve substantially more construction and operational activity than the Proposed Project, since it is assumed to involve operation of three vessel berths and a large processing facility. If the facility included receipt of GBFS and production of GGBFS in substantial quantities, the concept could achieve the objectives of the Proposed Project. However, the construction and operation of such a facility would not avoid or reduce the environmental impacts associated with the Proposed Project but would instead involve more severe impacts, given the increased scale of construction and operation.

The fifth concept (other uses of Berths 192-194 waterfront) would not achieve any of the Proposed Project's objectives and is not being proposed at this time.

It would be inappropriate for the proponent of an industrial facility on a particular parcel of land to plan and analyze the future uses of adjacent Port property for which it has no

1 use or rights. Accordingly, this alternative was eliminated from further consideration not
2 only because construction and operation would not eliminate or reduce impacts of the
3 Proposed Project but also because it would be infeasible due to jurisdictional issues.

4 **5.4.5 Alternate Location Alternative**

5 **Description of Alternative**

6 As described in Section 1.6.7, CEQA Guidelines (§15126.6) require that an EIR describe
7 a reasonable range of feasible alternatives to a proposed project, which could include an
8 alternate location, that could feasibly attain most of the basic objectives of the Proposed
9 Project but would avoid or substantially lessen any significant environmental impacts.
10 For the Proposed Project, the San Pedro Bay ports is Orcem's preferred option due to
11 their central location in the Los Angeles market, which would minimize the length of
12 truck trips to supply the customer base. Nevertheless, over a period of seven years, from
13 2009 to 2015, Orcem investigated numerous potential sites for the proposed facility on
14 both public and private property. The site search effort included contacting California
15 seaports and retaining the commercial real estate firm CBRE Group Inc. to investigate
16 other potential sites.

17 Orcem considered seven sites in the Port Long Beach, on Piers B, C, D, and T, but was
18 unable to secure the lease or purchase of a suitable site. Orcem also pursued a site at Port
19 Hueneme in 2011 and a site at the Port of San Diego 10th Avenue Terminal in 2011,
20 2013, and 2015, but neither site could be obtained. Five off-port sites from Long Beach to
21 Santa Fe Springs were evaluated, but the economics of double handling the GBFS
22 material (i.e., offloading from vessels to trucks then from trucks to the processing
23 facility) eliminated the off-port option entirely. The Proposed Project site was selected
24 because Orcem was the successful responder to the Port of Los Angeles's 2015 Request
25 For Proposals (RFP) for the Berths 192-194 site.

26 **Analysis of Alternative**

27 An alternate site could meet most of the Project objectives if it included waterfront access
28 for berthing oceangoing vessels and was reasonably close to the population centers of
29 Southern California. However, the prolonged and comprehensive search for a site that
30 Orcem undertook demonstrated that the Berths 192-194 site is the only suitable site in the
31 region that is currently available for the Proposed Project. Accordingly, this alternative
32 was eliminated from further consideration based on the infeasibility of obtaining a
33 suitable alternate location.