7. Alternatives to the Proposed Project

7.1 PROJECT DESCRIPTION

7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6). This chapter identifies and evaluates potential alternatives to the proposed project, as required by CEQA.

Key provisions of the CEQA Guidelines on alternatives (Sections 15126.6[a] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in this Draft EIR (DEIR).

- "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" (15126.6[b]).

- "The specific alternative of 'no project' shall also be evaluated along with its impact" (15126.6[e] [1]).

- "The no project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, and at the time the environmental analysis is commenced, as well as what would reasonably be 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. 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]).

- "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project" (15126.6[f]).

- "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, 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)" (15126.6[f] [1]).

- For alternative locations, "only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR" (15126.6[f] [2] [A]).

- "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (15126.6[f] [3]).

For each development alternative, this analysis:

- Describes the alternative.
- Analyzes the impact of the alternative as compared to the proposed project.
- Identifies the impacts of the project that would be avoided or lessened by the alternative.
- Assesses whether the alternative would meet most of the basic project objectives.
- Evaluates the comparative merits of the alternative and the project.

Per the CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the project as proposed.

7.1.2 Project Objectives

As described in Section 3.2, the following objectives have been established for the proposed project and will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts.

1. To ensure continued disposal capacity for Los Angeles County refuse through the development of environmentally sound and cost-effective local infrastructure to support a waste-by-rail system.

2. To comply with recommendations from the Ad Hoc Committee[1] on Waste-by-Rail and Condition No. 58 of Conditional Use Permit Case No. 02-027-(4)[2] regarding the development of a waste-by-rail system.

3. To provide a dedicated local intermodal facility with the capacity for up to 4,000 tons per day (tpd) (six-day average or tpd-6) of municipal solid waste (MSW) from the Puente Hills Materials Recovery Facility (PHMRF), as well as approximately 4,000 tpd-6 of MSW from other facilities, comprising up to two waste-by-rail trains per day. A minimum site size of 15 acres is required to accommodate this capacity.

4. To avoid potential local traffic impacts by providing a nonpublic accessway between the Puente Hills Materials Recovery Facility and the proposed intermodal facility.

7.1.3 Significant Impacts of the Project

As discussed above, a primary consideration in defining project alternatives is their potential to reduce or eliminate significant impacts compared to the proposed project. The impact analysis, as detailed in Section 5 of this DEIR, concludes that the following impacts would remain significant and unavoidable after implementation of Mitigation Measures for the proposed project and, as such, would require a Statement of Overriding Considerations:

[1] In 1991, an Ad Hoc Committee, comprised of seven Sanitation District Directors (elected city officials) and six city managers representing three regional city managers association, was formed to guide the Sanitation Districts' efforts in developing a waste-by-rail system.

[2] Conditional Use Permit No. 02-027-(4) was granted to County Sanitation District No. 2 of Los Angeles County by the Los Angeles County Regional Planning Commission on December 18, 2002. The Conditional Use Permit authorized continued operation of the Puente Hills Landfill and contained specific conditions regarding the development of a Waste-by-Rail System.

Air Quality

- *Impact 5.2-3.* **Significant.** During construction of the Puente Hills Intermodal Facility (PHIMF), the project would generate short-term emissions of NO_X that exceed the South Coast Air Quality Management District's (SCAQMD) mass daily construction emission thresholds and would significantly contribute to the South Coast Air Basin's (SoCAB) ozone and fine particulate matter ($PM_{2.5}$) nonattainment designation. Mitigation Measures 2-1 through 2-4 would reduce emissions of NO_x to the extent feasible. However, due to the amount of construction activity on-site, the mitigation measures would only reduce NO_x emission by a few percent. Consequently, Impact 5.2-3 and cumulative construction impacts would remain significant and unavoidable.

- *Impact 5.2-4.* **Significant.** Operation of the PHIMF would generate emissions of NO_X that exceed the SCAQMD's mass daily operational emission thresholds and would significantly contribute to the SoCAB ozone and fine particulate matter ($PM_{2.5}$) nonattainment designation. Traffic improvements proposed as part of the project (see Section 5.10, *Transportation and Traffic*), would generally improve local traffic flow, thereby reducing emissions generated in the project study area. However, no feasible mitigation measures are available to reduce emissions from mobile sources (employee vehicles, haul trucks, main-line locomotives, and switch locomotive) or stationary sources (forklifts, container handlers, natural gas, architectural coatings) from operation of the PHIMF. Consequently, Impact 5.2-4 and cumulative operational impacts would remain significant.

- *Impact 5.2-5.* **Significant.** During construction of the PHIMF, sensitive receptors would be temporarily exposed to concentrations of coarse particulates (PM_{10}) and fine particulates ($PM_{2.5}$) that would exceed the SCAQMD's Localized Significance Thresholds (LSTs). Mitigation Measure 2-5 and 2-6 would require the construction contractor to apply water a minimum of three times daily during demolition activities to raise the dust control efficiency from 55 percent to 61 percent. This would reduce on-site PM_{10} and $PM_{2.5}$ emissions associated with fugitive dust from demolition activities to and grading activities. However, the construction equipment exhaust and fugitive dust from grading and demolition activities would result in localized concentrations of PM_{10} that exceed the SCAQMD's LST for sensitive uses within 200 meters (656 feet) and $PM_{2.5}$ that exceed the SCAQMD's LST for sensitive uses within 25 meters (82 feet) and Impact 5.2-5 would remain significant and unavoidable.

Noise

- *Impact 5.7-2.***Significant.** Two to four additional train trips on the Union Pacific Railroad (UPRR) would result in noticeable single-event noise when project-related trains pass residential neighborhoods adjacent to the railroad tracks. Implementation of Mitigation Measures 7-1 and 7-2 would reduce noise levels from all train activities (existing and project-related trains) within the immediate vicinity of the PHIMF, to the extent feasible. Sound walls or structural improvements required under Mitigation Measure 7-1 would substantially lower the existing average noise levels and single-event train noise generated by railroad activities. Implementation of Mitigation Measure 7-2 would eliminate the sounding of train horns within a quarter-mile of the Mission Mill Road crossing. However, establishment of a quiet zone takes considerable time and requires approval by the Federal Railroad Administration (FRA). In addition, sound walls at the two residential neighborhoods would not reduce noise levels below the County of Los Angeles Municipal Code noise standards. Furthermore, sound walls and/or quiet zones would be necessary along the entire 18-mile rail route to provide mitigation for all noise impacts from project-related trains. The two to four daily train trips associated with the project would also contribute toward the significant cumulative noise impact that is anticipated as train traffic increases along the UPRR main line to accommodate projected growth at the Los Angeles and Long Beach ports. The Mitigation Measures would not mitigate the noise

impacts at residences along the 18-mile haul route to less than significant levels. Consequently, this impact would be significant and unavoidable.

- *Impact 5.7-4.* **Significant.** Operation of the PHIMF would temporarily increase noise levels during locomotive engine idling on the County Sanitation District No. 2 of Los Angeles County (LACSD) staging and arrival/departure tracks, resulting in significant levels of noise at the Gladstone residences. While a maximum of one of every two inbound trains from the MRL would idle at this location and implementation of Mitigation Measure would reduce this impact, no additional mitigation measures are available to reduce noise from idling locomotives in close proximity to the Gladstone residences to less than significant. Consequently, impacts to the Gladstone residents from train idling would be significant.

- *Impact 5.7-5.* **Significant.** No feasible mitigation measures are available to reduce vibration generated by heavy construction equipment operating in close proximity to vibration-sensitive structures. Consequently, during construction of the project, Impact 5.7-5 would be significant and unavoidable.

- *Impact 5.7-6.* **Significant.** No feasible mitigation measures are available to reduce vibration generated by project-related trains traveling to and from the project site on the UPRR. Consequently, Impact 5.7-6 would be significant and unavoidable.

- *Impact 57-7.* **Significant.** Mitigation Measures 7-3 through 7-9 would reduce noise generated by construction activities, but there would still be an unavoidable adverse significant noise impact during the construction period. Consequently, during construction of the project, Impact 5.7-7 would be significant and unavoidable.

Transportation and Traffic

- *Impact 5.10-2.***Significant.** Mitigation Measure 10-8 would improve the safety of the Workman Mill Road at-grade crossing through installation of a four-gate system (quad gates). Project-related trains would delay traffic at the Workman Mill Road crossing four times a day for up to six to seven minutes. The quad gates prevent vehicles from driving around the gates to cross the tracks just before the train arrives. To minimize vehicles stacking at the Workman Mill Road/Crossroads Parkway South and the Workman Mill Road/Pellissier Place intersections, Mitigation Measure 10-9 would implement dynamic message boards that alert oncoming motorists of potential delays and recommend detours. This Mitigation Measure would reduce the number of vehicles impacted at the train crossing. However, significant traffic impacts would remain because (1) the four project-related train trips would cause approximately delays twice the vehicle time delay at the intersection, when compared to four existing train trips and (2) the number of vehicles being detoured away from the Workman Mill Road crossing would impact nearby streets, such as Crossroads Parkway and Peck Road. To reduce impacts associated with the latter, Mitigation Measure 10-10 would interlink signals at six intersections in the project vicinity to the Workman Mill Road grade crossing to reduce vehicle delay. However, no mitigation measures are available to eliminate additional delay at the at-grade crossing from project-related trains. As part of Mitigation Measure 10-9, static message boards would warn motorists of the anticipated length of delay, which would allow motorists to turn off their engines. Impact 5.10-2 would be significant and unavoidable.

7.1.4 Alternatives Considered and Rejected during the Scoping/Planning Process

Among the factors that can be used to eliminate alternatives from detailed consideration in an EIR are "failure to meet most of the basic project objectives, infeasibility, or inability to avoid significant environmental impacts" (CEQA Guidelines Section 15126.6[c]). The review of potential project alternatives included all aspects of the project: (1) construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way, (2) location of the PHIMF, (3) location of the new staging tracks, (4) design options for the off-street access road, (5) use of existing railroad intermodal facilities (IMFs), and (6) operation of the PHIMF. Several alternatives were eliminated during the scoping/planning process, either because they were deemed infeasible or because they were technologically or environmentally inferior as compared to the proposed project. Rejected alternatives are described below.

PHIMF Access Option

An extensive planning process was conducted to determine potential alternative truck routes for delivering containerized MSW to the PHIMF. Due to the proximity of the proposed PHIMF to the PHMRF, one of the project objectives was to provide an off-street (nonpublic) access route between the two facilities so that trucks would not need to travel on or across local roads. Three potential off-street access options were developed and described in the Initial Study, included as Appendix A in Volume IIA of this DEIR. The alignment identified as Access Option C was selected as the Preferred Access Option for evaluation in this DEIR. The on-street access option, as well as the two alternative off-street access options (Options A and B), were eliminated from further consideration.

- **On-Street Access Option**

  The on-street access option would eliminate the need to construct an off-street access roadway between the PHIMF and the PHMRF. Trucks carrying containerized waste from the PHMRF and other materials recovery facilities (MRFs) would access the PHIMF on Pellissier Place. This alternative would eliminate the need to acquire Parcel A and would eliminate significant air quality and noise impacts from construction of the off-street access option.

  This alternative was screened out during the scoping process because the on-street access option failed to meet the project objective of providing off-street access to reduce local traffic impacts. The On-Street Access Option would eliminate temporary air quality and noise impacts from construction, but would be expected to have greater long-term environmental impacts because of additional traffic on local roadways in comparison to the Preferred Access Option.

- **Access Option A – Tunnel beneath Workman Mill Road and UPRR**

  Access Option A would involve construction of the off-street access road within a tunnel beneath Workman Mill Road and the UPRR right-of-way. To avoid an existing 12-foot-high by 10-foot-wide storm drain under Workman Mill Road, the top of the tunnel would be approximately 24 feet below Workman Mill Road and the bottom of the tunnel would be approximately 46 feet below Workman Mill Road. The tunnel access alignment would be approximately 40 feet wide, 16 feet high, and 1,400 feet long, of which approximately 615 feet would be an enclosed reinforced concrete tunnel. The portion of the tunnel within Parcel A would be open to the ground surface.

  This alternative was screened out during the scoping process, in part because the existing storm drain would require the tunnel to be constructed at a depth that would likely require groundwater management during construction and postconstruction operations. It also would subject the nearby

area to increased vibrational impacts during construction. In addition, this alternative would not reduce the significant unavoidable impacts of the proposed project. Hence, Access Option A would be expected to have greater environmental impacts in comparison to the Preferred Access Option.

- **Access Option B – Bridge over Workman Mill Road and UPRR**

  Access Option B would involve construction of the off-street access road on a bridge that would span Workman Mill Road and the UPRR right-of-way. The bridge access alignment would be approximately 40 feet wide and 1,610 feet long, of which approximately 1,125 feet would be elevated. The bridge would be made of concrete and would consist of spans supported by columns. The bridge would provide a minimum 15-foot clearance over Workman Mill Road and 26-foot clearance over the UPRR main tracks.

  This alternative was screened out during the scoping process, in part because the height of the bridge would result in additional visual impacts. In addition, the bridge would result in direct line of sight of the roadway surface to nearby noise-sensitive receptors, thereby increasing noise impacts. Furthermore, this alternative would not reduce the significant unavoidable impacts of the proposed project. Hence, Access Option B would be expected to have greater environmental impacts in comparison to the Preferred Access Option.

At-Grade Crossing at Workman Mill Road

The feasibility of grade separating the Workman Mill Road and the UPRR at-grade crossing was investigated as an alternative to the project to eliminate the use of project-related train horns and the project's potential to increase vehicle delay at the crossing. This intersection was included in the Alameda Corridor East (ACE) Trade Corridor Plan's investigation of crossings for grade separation as a result of increased freight from the ports of Los Angeles and Long Beach. However, this intersection was not included on the final ACE list of crossings that were indentified as candidates for grade separation.

- **Workman Mill Road At-Grade Crossing**

  Grade separation of the Workman Mill Road and UPRR at-grade crossing would eliminate vehicle delay from trains traveling within the UPRR right-of-way. This alternative would eliminate the need for project-related trains to sound train horns at the at-grade crossing and would also eliminate the need for UPRR trains to sound their horn at the crossing. This alternative would also eliminate traffic delay at the Workman Mill Road and UPRR crossing from both project-related trains and cumulative train traffic.

  This alternative was screened out during the scoping process because it was determined to be infeasible due to the underpass requirements for truck traffic. To accommodate truck traffic, a 16.5-foot clearance for Workman Mill Road under the rail overcrossing would be necessary. Two scenarios, a gradual slope and a steep slope scenario, were evaluated to determine the feasibility of lowering the existing grade of Workman Mill Road so that it would accommodate 16.5-feet of clearance under the UPRR right-of-way. A maximum street grade of 5 percent is the maximum slope to accommodate truck traffic and would require 700 feet of length of headway before reaching a maximum height of 16.5 feet under the UPRR right-of-way. A more gradual street grade of 2 percent would require 950 feet of length in order to accommodate a 16.5-foot clearance at Workman Mill Road. However, the Workman Mill Road – Crossroads Parkway South intersection is located 350 feet from the centerline of the southern UPRR track at the at-grade crossing. In addition, the primary access point to the Gladstone residences at Cambray Drive lies approximately 375 feet north of the

northern UPRR mainline track. Realignment of Workman Mill Road under either scenario would therefore not be feasible because there would not be enough length to meet the existing grade at the Workman Mill Road – Crossroads Parkway South intersection or the Cambray Drive – Workman Mill Road intersection.

Alternatively, the feasibility of raising the elevation of the railroad tracks at the Workman Mill Road Crossing to meet the grade of the Workman Mill Road – Crossroads Parkway South intersection or the Cambray Drive – Workman Mill Road intersection was evaluated. Raising the UPRR tracks would require the railroad to be elevated by approximately eight to nine feet. However, due to the proximity of the PHIMF site and the SR-60 underpass, this was also determined to be infeasible.

Construction Alternatives

County Sanitation District No. 2 of Los Angeles County (LACSD) initially considered two options for closure of Workman Mill Road during construction of the off-street access: (1) partial closure, which would allow continued traffic flow within one lane in each direction and (2) full closure, which would close the entire road for an extended period of time and reroute traffic around the construction zone. Both closure options were evaluated in the Noise Study and Traffic Study, which are provided as Appendices G and H, respectively, to this DEIR. However, after further evaluation during the project scoping process, the LACSD elected not to pursue the full closure option, as discussed below.

- **Workman Mill Road Full Closure Construction Option**

  Under this construction alternative, Workman Mill Road would be closed to traffic in each direction between Peck Road and Crossroads Parkway South during construction of the off-street access road. Traffic on Workman Mill Road between these two intersections would be detoured around the construction zone on local roadways, including Pellissier Place, Peck Road, and Crossroads Parkway South. Additionally, arrangements would be made for alternative access to and from facilities that currently front Workman Mill Road. The benefit of the complete closure of Workman Mill Road is that it would shorten the projected off-street access road construction schedule from approximately 18 months to 12 months. However, the technical assessments conducted for the Workman Mill Road full closure alternative determined that there are no feasible mitigation measures that could reduce traffic and noise impacts to less than significant if that portion of Workman Mill Road is completely closed. On the basis of the findings of significant environmental impacts, the LACSD has eliminated this construction option from further consideration.

Rail Track Layout Alternatives

The Preferred Rail Track Option evaluated in the DEIR consists of two new 12,500-foot staging tracks and various rail improvements within 18,000 linear feet of the UPRR right-of-way, from approximately 400 feet west of Mission Mill Road to approximately 9,000 feet east of Workman Mill Road. The LACSD evaluated the Preferred Rail Track Option, as well as two alternative track layout options (East Track Layout and West Track Layout). Track alternatives are shown on Figure 7-1, *Project Alternative Locations*. However, the West Track Layout was evaluated and eliminated from further consideration during the scoping process.

- **Alternative Track Layout – West Track Option**

  The West Track Option would place two approximately 5,000-foot long storage tracks between the at-grade railroad crossings at Workman Mill Road and Mission Mill Road, with a yard lead just east of the PHIMF and Workman Mill Road. Under the West Track Option, switching operations and

staging of arriving and departing trains would be conducted on the tracks between Workman Mill Road and Mission Mill Road. This alternative would eliminate construction of the 7,300 feet of arrival/departure tracks located to the east of Workman Mill Road. The West Track Option would reduce noise and air quality impacts associated with idling locomotives from the temporary staging of arriving and departing trains near the Gladstone and Whittier Woods residences.

This alternative was screened out during the scoping process because the UPRR has indicated that without dedicated arrival/departure tracks, the waste-by-rail train would not be able to merge onto and exit off of the UPRR main line at sufficient speed, which conflicts with UPRR operating polices. Under this scenario trains would merge onto the UPRR main line at 10 to 15 mph. If trains merging onto the UPRR main line do not gain sufficient speed before merging, project-locomotives would disrupt UPRR operations and result in additional safety concerns. In order to merge onto the UPRR mainline at sufficient speed not to disrupt UPRR operations, additional acceleration/deceleration tracks would be required.

Alternative Locations

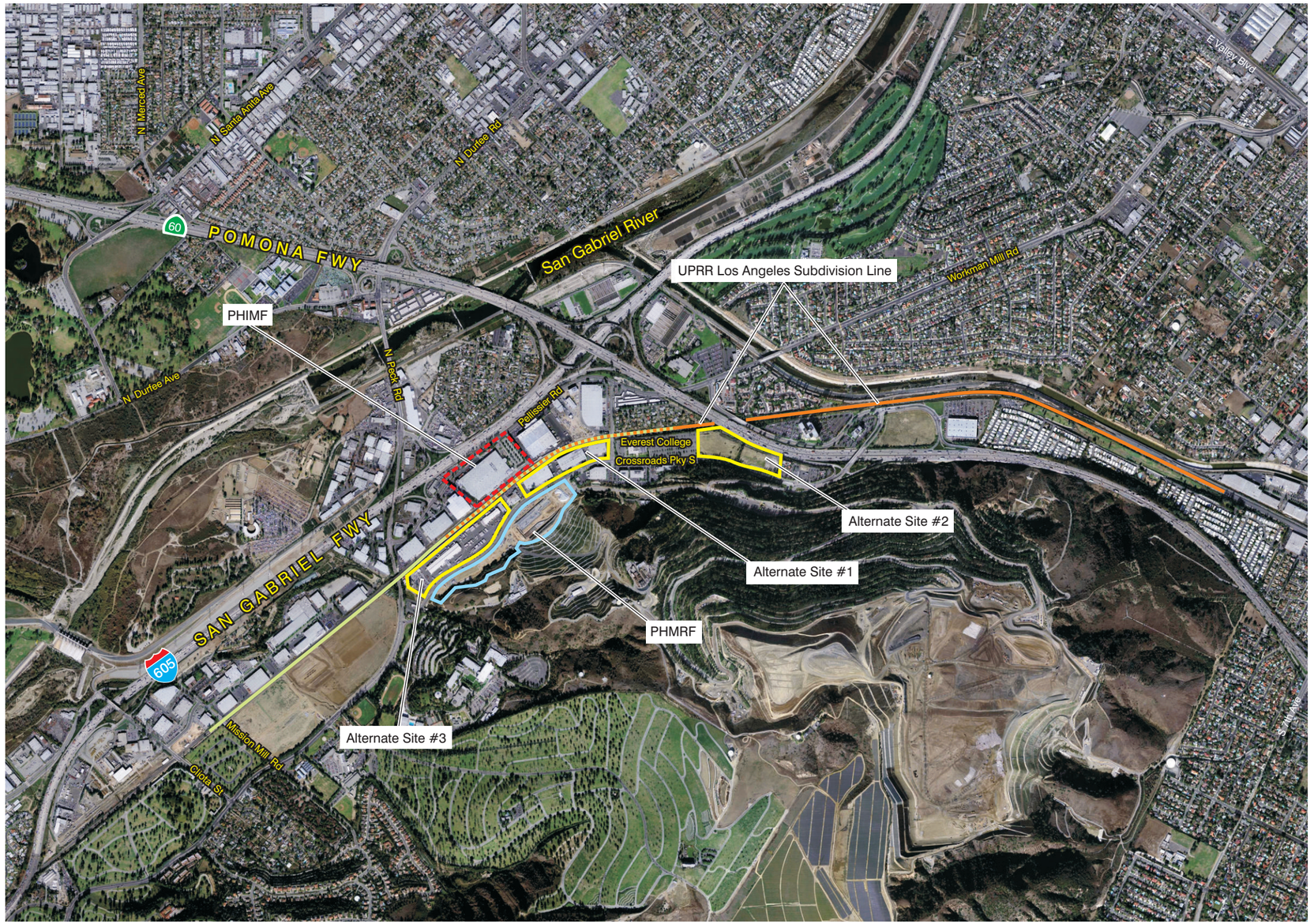
CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project at another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR (CEQA Guidelines Sec. 15126.6[f] [2] [A]). In general, any development of the size and type proposed by the project would have substantially the same impacts on air quality, land use/planning, noise, population/housing, public services, recreation, transportation/traffic, and utilities/service systems. Without a site-specific analysis, impacts on aesthetics, biological resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, and mineral resources cannot be evaluated.

Prior to selecting the recommended location for the PHIMF, the LACSD conducted an extensive planning process to determine the location of the PHIMF using the following siting criteria:

- Proximity to the PHMRF, including the feasibility of constructing an off-road accessway between the PHMRF and the proposed site location to reduce potential traffic impacts;
- Adequate characteristics to support rail operations, including connection to the UPRR main line, minimum size (greater than 15 acres), and optimal site orientation/dimensions to support loading/unloading operations;
- Consideration of adjacent land uses, including proximity to sensitive receptors; and
- Ability to acquire the property (e.g., current utilization, owner's willingness to sell, etc.).

The 17.2-acre project site located at 2500 and 2520 Pellissier Place was selected because it most closely met the siting criteria. Among the other alternative sites (Alternative Site Nos. 1, 2, and 3), two were eliminated during the scoping process, while the third was retained for more detailed analysis in this DEIR (Alternative Site No. 3). The locations of these three alternative sites are shown on Figure 7-1, *Location of Project Alternatives*. The two alternative location scenarios that were eliminated from further analysis during the scoping process are described below.

Location of Project Alternatives



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- **Alternative Location Scenario – Alternative Site No. 1**

  This alternative location consists of three parcels (APNs 8125-018-030, 8125-018-025, and 8125-018-024), totaling approximately 11.2 acres. The site is currently developed and used for warehousing and distribution. This alternative was screened out because it is less than 15 acres in size and, therefore, would not meet the project objectives of allowing for two trains per day. Furthermore, this site is located closer to the Gladstone residences and is only separated from the west side of a satellite campus for Everest College by Workman Mill Road, resulting in potentially greater construction and operational air quality and noise impacts to these sensitive receptors than the proposed project.

- **Alternative Location Scenario – Alternative Site No. 2**

  This alternative location consists of two parcels (APNs 8125-059-018 and 8125-059-019) and a portion of a third parcel (APN 8125-059-016), totaling approximately 10.7 acres. The site was vacant at the time the NOP was issued but is currently being developed. This alternative was screened out because it is less than 15 acres in size and, therefore, would not meet the project objective of allowing for two trains per day. The location of this alternative site for intermodal operations would allow trains to be delivered to the PHIMF without the need to cross the at-grade crossing at Workman Mill Road, thereby reducing noise and traffic impacts at this rail crossing. In addition, this alternative would eliminate the need to expand the railroad bridge at Peck Road. However, because this alternative location is closer to the Gladstone, Whittier Woods, Avocado Heights, and Wildwood Drive residences, and borders the east side of a satellite campus for Everest College, it would subject greater numbers of sensitive receptors to construction and operational air quality and noise impacts as compared to the proposed project.

Since the Mesquite Regional Landfill (MRL) is permitted to accept up to 20,000 tons per day of waste by rail,[3] the proposed project would only be used to deliver a portion of permitted daily capacity. Consequently, in addition to the properties evaluated as a part of this project, the LACSD has and is continuing to evaluate numerous other properties throughout Los Angeles County, based on the established siting criteria, for development of additional intermodal facilities to serve the waste-by-rail system.

7.1.5 Alternatives Selected for Further Analysis

This section provides a summary description of the alternatives evaluated in Section 7.2. CEQA requires the evaluation of the No Project alternative. The analysis is required to discuss the existing conditions as well as "what would reasonably be 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." The No Project Alternative for the proposed project has been evaluated for two potential scenarios:

- **No Project Scenario 1 – Truck Waste to Landfills**

  Under this alternative, existing conditions remain and the LACSD would forego construction and operation of the PHIMF to haul waste by rail to the MRL. However, the Puente Hills Landfill is scheduled to close in 2013. Consequently, waste currently disposed of at the Puente Hills Landfill would have to be trucked to other local landfills in Los Angeles County and beyond.

[3] The MRL is permitted to accept up to 19,000 tons per day of waste from outside Imperial County and 1,000 tons per day from inside Imperial County for a total permitted daily disposal capacity of 20,000 tons.

- **No Project Scenario 2 – Use of an Existing Intermodal Facility**

  Under this alternative, the LACSD would seek to enter into a contractual arrangement to use an existing local IMF to haul waste by rail to the MRL. Currently there are no IMFs dedicated to solid waste transfer operations in the region. However, rail companies own and operate existing IMFs for general cargo handling that potentially could be used to transfer solid waste containers between trucks and rail cars.

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The following alternative location was selected for further analysis in this DEIR:

- **Alternative Location Scenario – Alternative Site No. 3**

  This alternative location consists of a single parcel (APN 8125-017-017) of 20.1 acres that is currently used as a trucking terminal (see Figure 7-1). Based on the shape of the parcel, longer on-site loading tracks could be constructed at this location as compared to the proposed project site. In addition, this site is located south of the UPRR tracks and would reduce construction impacts associated with the off-street access road by eliminating the need to construct a railroad bridge over the off-street access road.

As discussed above, a primary consideration in defining project alternatives is their potential to reduce or eliminate significant impacts compared to the proposed project. The following alternatives were evaluated based on the potential to reduce significant air quality and noise impacts from operation of the proposed project:

- **Reduced Project Alternative – Maximum Permitted Capacity of 4,000 tpd**

  Based on the finding that PHIMF operations would result in a significant, adverse impact to surrounding residences, this alternative was designed to reduce noise and air quality impacts of the project. Under this alternative, containerized MSW would only be accepted from the PHMRF and the LACSD would not increase operations in year 2013 to accommodate a second train. MSW from other MRFs would be transported by truck to other IMFs for transport by rail to the MRL for disposal upon closure of the Puente Hills Landfill in 2013.

- **Alternative Track Layout – East Track Option**

  The East Track Option would reduce temporary noise, air, and traffic impacts by eliminating the need to expand the Peck Road railroad bridge. For the extent of this alternative, refer to Figure 7-1. Under this alternative, the LACSD would place two approximately 8,000-foot-long staging tracks east of the at-grade rail crossing at Workman Mill Road, with a yard lead (tracks that connect the LACSD staging tracks to the main line) that would traverse the at-grade rail crossing at this intersection and connect to the loading tracks within the PHIMF. Under the East Track Option, arriving and departing trains would be temporarily staged on the tracks east of Workman Mill Road.

These alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the project, but that may avoid or substantially lessen any of the significant effects of the project.

7.2 ENVIRONMENTAL EVALUATION OF ALTERNATIVES

This section reviews the relative ability of each alternative to reduce environmental impacts in comparison to the proposed project, and determines whether the alternative could feasibly meet the objectives of the proposed project. Although the analysis addresses the impacts of each environmental category, the summary section for each alternative focuses on the respective alternative's ability to reduce or eliminate impacts determined to be significant and unavoidable under the proposed project (see Section 7.1.3). The summary sections also highlight any new significant impacts that would be introduced by a project alternative.

7.2.1 No Project Scenario 1 – Truck Waste to Landfills

Alternative Description

Under the No Project Scenario 1 – Truck Waste to Landfills, existing conditions would remain and the LACSD would forego construction and operation the PHIMF to haul waste by rail to the MRL. However, the Puente Hills Landfill is scheduled to close in 2013. Consequently, waste currently disposed of at the Puente Hills Landfill would have to be trucked to other landfills in southern California, such as the MRL.[4] As discussed in Section 3.3.2, waste could only be trucked to the MRL if Imperial County approves the LACSD's request to amend the MRL's conditional use permit (CUP).

The disposal capacity needs analysis noted that future disposal needs for Los Angeles County are expected to exceed available disposal capacity by 2,000 to 5,000 tpd in 2013 and increase over the planning period to about 9,000 to 19,000 tpd in 2020. These estimates are based on future disposal needs, assuming that a 50 percent countywide diversion rate is achieved and will continue to be achieved, as required by the Integrated Waste Management Act of 1989 (Assembly Bill 939).

Environmental Assessment

Aesthetics

Under this alternative, the PHIMF would not be developed and the intermodal facility, along with associated sources of light and glare, would not be introduced into the project area. Project-related impacts would be reduced in comparison to the proposed project.

Air Quality

Construction Air Emissions

Under this alternative, construction of the PHIMF, improvements to the UPRR right-of-way, and the off-street access road would not be developed and, therefore, construction emissions would not be generated. Compared to the proposed project, this alternative would eliminate the construction-related regional (mass daily) impact and eliminate the significant local (LST) air quality impact of the project.

Operational Air Emissions

For this alternative, air emissions would not be generated from project-related employee trips, locomotive trips, or on-site stationary sources (e.g., energy consumption, rubber-tired gantry cranes, switch locomotives

[4] Existing permits for the MRL do not allow waste from outside of Imperial County to be trucked to the site for disposal. The LACSD has applied to Imperial County to amend the permits to allow up to 4,000 tpd to be trucked to the site from outside Imperial County.

and locomotive idling, truck idling, forklifts, container handlers, etc.), as this alternative would eliminate locomotive engines (train locomotive and the switch locomotive engines), idling trucks, and use of on-site equipment within the vicinity of residential areas, compared to the proposed project. Therefore, localized air quality operational impacts under this alternative would be reduced in comparison to the proposed project.

However, truck transport of containerized MSW to other landfills would result in additional sources of vehicle emissions due to the greater travel distances involved, particularly if the MSW were trucked to more distant landfills. Based on the assumption that 182 heavy-duty long-haul trucks would be required to haul the same amount of MSW as one train, CO, NO_X, ROG, PM_{10}, and $PM_{2.5}$ emissions[5] under this alternative would be substantially greater than the proposed project, as shown in Table 7-1. Consequently, operational regional air quality impacts of this alternative would be greater than the proposed project.

Table 7-1
Comparison of Truck vs. Train Transport Emissions
(in pounds per day)

Source	CO	NO_X	ROG	SO_2	PM_{10}	$PM_{2.5}$[1]
South Coast Air Basin						
On-Road Truck Emissions	1,580	2,739	321	4	139	137
Locomotive Haul Emissions	180	660	36	0	24	22
Increase from Truck Transport in SoCAB	**1,400**	**2,079**	**284**	**4**	**115**	**115**
Salton Sea Air Basin						
On-Road Truck Emissions	594	1,030	121	2	52	52
Locomotive Haul Emissions	68	249	14	0	9	8
Increase from Truck Transport in SSAB	**526**	**781**	**107**	**2**	**43**	**43**
Total Increase in Truck vs. Train Emissions	**1,926**	**2,860**	**392**	**5**	**158**	**159**

Source: Synectecology, *Puente Hills Intermodal Facility Focused Air Quality Study*, November 2007.
Notes:
On-Road Trucks: Based on a 388-mile round-trip distance to the Mesquite Regional Landfill with 282 miles in the SoCAB and 106 miles in the SSAB. Calculated using the EMFAC2007 computer model for Buildout Year 2013, based fleet average for in-use heavy, heavy duty trucks for model years 1965 through 2013 in the County of Los Angeles.
Locomotive: Based on a 402 mile round trip to the Mesquite Regional Landfill with 292 miles in the SoCAB and 110 miles in the SSAB. Calculated based on an average weighted bhp for locomotives traveling an average speed of 40 mph of 1,696 bhp.

Cultural Resources

Because grading and excavation for the off-street access road would not occur, there would be no potential impacts to undiscovered historical, archaeological, or paleontological resources or human remains. Assuming that such cultural resources exist, impacts would be reduced in comparison to the proposed project.

Geology and Soils

Grading and excavation for the PHIMF, off-street access road, and improvements within the UPRR right-of-way would not be constructed under this alternative. Consequently there would be no impacts related to groundwater or soil erosion. The potential would continue to exist for ground-shaking and secondary seismic

[5] These emissions were calculated using the EMFAC2007 computer model for Buildout Year 2013, based on fleet average for in-use heavy-heavy-duty trucks for model years 1965 through 2013 in the County of Los Angeles.

impacts, such as liquefaction, to affect existing structures at the project site and within the project study area. Overall, impacts to geology and soils would be reduced in comparison to the proposed project.

Hazards and Hazardous Materials

This alternative would eliminate project-related train trips on the UPRR and eliminate the need for storage, use, and disposal of hazardous materials associated with the project. Given these considerations, this alternative would reduce hazards and hazardous materials associated with operation of the project.

Hydrology and Water Quality

Upon construction of the PHIMF, the area of impervious (i.e., paved) surfaces is expected to be about the same as under existing conditions. However, with the No Project alternative, ground surfaces would not be disturbed for facility construction and, therefore, there would be no increased potential for the discharge of sediments to local drainages and downstream receiving waters. Additionally, hazardous materials would not be used during construction or operation of the PHIMF, thereby eliminating the possibility of groundwater or surface water impacts. Overall, hydrology and water quality impacts would be reduced in comparison to the proposed project.

Noise

Construction Noise

Because construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way would not occur under this alternative, the significant construction noise and vibration impacts to sensitive receptors associated with the project would be eliminated.

Operational Noise

Under this scenario, mobile-source noise associated with trains and employee vehicle trips would be eliminated. Locally, noise associated with truck trips to and from the project study area would be reduced as compared to the project buildout scenario (2013), because MSW would not be received from other MRFs. While trucks would travel to more distant landfills, these trips would represent a small fraction of regional traffic and impacts would be similar in this regard. This alternative would also eliminate noise from use of on-site equipment, train coupling, and idling trains. Compared to the project, this alternative would eliminate the significant single-event noise and vibration impacts to sensitive receptors adjacent to the 18-mile segment of UPRR tracks between the proposed project site and the Pomona Switch, including Rose Hills Memorial Park.

However, under this alternative, the proposed noise-reduction measures (i.e., sound walls or noise shielding windows and doors) would not be provided along the UPRR right-of-way near the PHIMF site and a quiet zone would not be established at the Workman Mill Road train crossing, so local residents at Whittier Woods and Gladstone would not benefit from these project-related noise Mitigation Measures. These measures would provide significant noise-reduction benefits to the local residents associated not only with the project, but also with existing and future non-project-related train traffic along the UPRR right-of-way. Therefore, noise impacts associated with this alternative would be either greater than or less than the proposed project, depending on the location of the sensitive receptors. Because more individuals are likely to be impacted by noise than would benefit from the proposed project, this alternative is judged to be environmentally superior to the proposed project with respect to noise.

Public Services

Because the PHIMF would not be in operation, impacts to police, fire, libraries, and schools would be reduced. Overall, public service impacts under this alternative would be eliminated in comparison to the proposed project.

Recreation

Under this alternative, improvements within the UPRR right-of-way at the Peck Road rail crossing would not occur, and the Schabarum Trail would not be closed periodically during construction activities. Consequently, impacts to recreation would be eliminated in comparison to the proposed project.

Transportation and Traffic

Construction Transportation and Traffic

Under this alternative, construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way would not occur and, therefore, neither would traffic delays caused by the partial closure of Peck Road and Workman Mill Road. Traffic delays at the at-grade rail crossings and train slowdown delays during construction of UPRR rail improvements would not occur. Impacts to transportation and traffic during construction would be eliminated in comparison to the proposed project.

Operational Transportation and Traffic

This alternative would eliminate the use of trains to transport MSW and therefore would eliminate the project's impact to vehicle delay at the Workman Mill Road railroad crossing from project-related trains. Although this alternative would eliminate project-related vehicle and train trips to the PHIMF, this alternative would result in an increase in long-haul truck trips associated with transport of MSW to more distant landfills. It is likely that the number of haul trucks needed to transport 8,000 tpd of MSW greater distances to the other landfills would significantly impact the regional roadway network. Compared to the proposed project, operational transportation and traffic impacts would be greater than the proposed project. Given these considerations, overall traffic impacts would be substantially greater under this alternative in comparison to the proposed project.

Utilities and Service Systems

Water and wastewater services are currently provided for the vacant warehouse facility located at the PHIMF project site and would be continued on this minimal basis as required to maintain the property and grounds. Overall, utilities and service systems for this alternative would be reduced in comparison to the proposed project.

Ability to Reduce Environmental Impacts

The No Project Scenario 1 – Truck Waste to Landfills alternative substantially reduces or eliminates significant unavoidable environmental impacts related to local construction air quality, construction noise, and operational noise impacts that would result from the proposed project. It also eliminates traffic impacts to local roadways during construction of the off-site rail line and roadway improvements, and during operation of the PHIMF at full buildout. However, it would still be necessary to dispose of the 8,000 tpd of MSW that would otherwise be managed by the PHIMF at the MRL and/or other southern California landfills. These disposal needs would be met by greater numbers of trucks and/or greater haul distances, resulting in substantial new traffic impacts and additional regional operational air emissions. Overall, this alternative

would reduce or eliminate environmental impacts locally (i.e., at the project site and within the project study area), but would increase impacts regionally, particularly with respect to air quality and traffic. Because the regional impacts would be borne by a greater number of people, the proposed project is judged to be environmentally superior to this alternative.

Ability to Attain Project Objectives

(Note: The reference numbers in this section refer to the project objectives listed in Section 7.1.2)

This alternative would not achieve any of the primary objectives of the project. The ability to transport waste by rail to the MRL is essential in replacing a portion of disposal capacity lost to the closure of the Puente Hills Landfill and in meeting the long-term disposal needs of Los Angeles County. Therefore, this alternative would not achieve project objective No. 1, because it would not allow development of the infrastructure needed to support a waste-by-rail system. Because the CUP for the MRL currently only allows disposal of containerized waste by rail from outside of Imperial County, except for emergency purposes, this alternative would not guarantee long-term disposal capacity for Los Angeles County. Furthermore, this alternative would not comply with the CUP for the Puente Hills Landfill, which requires the development of a waste-by-rail system (project objective No. 2). Without the development of a local IMF with the capacity to handle up to 8,000 tpd of MSW, project objective No. 3 would not be met. This alternative would also fail to avoid local traffic impacts associated with outbound truck traffic from the PHMRF, which would have to utilize the local roadway network, rather than the off-street access, to transport MSW to other landfills (project objective No. 4). However, trucks from other MRFs would not access the PHIMF site, through the PHMRF so local traffic impacts in this regard would be neutral. Although this alternative would eliminate many of the significant impacts, it would not attain any of the project objectives.

7.2.2 No Project Scenario 2 – Use of an Existing Intermodal Facility

Alternative Description

The No Project Scenario 2 – Use of an Existing IMF alternative would require use of an existing rail yard IMF for transport of containerized MSW from the PHMRF and other MRFs to the MRL. There are three existing IMFs within 10 miles of the PHMRF: (1) City of Industry IMF, (2) East Los Angeles IMF, and 3) Hobart IMF. The City of Industry IMF and the East Los Angeles IMF are owned and operated by the UPRR and the Hobart IMF is owned and operated by the Burlington Northern Santa Fe Railroad (BNSF). Since the UPRR owns the railroad tracks that are closest to the MRL, it is unlikely that the Hobart IMF would be utilized to assemble trains destined for the MRL. Therefore, the Hobart IMF is not considered in this analysis. Under this alternative, containerized MSW from the PHMRF and other MRFs would be transported by trucks to either the City of Industry IMF or the East Los Angeles IMF. The locations of these IMFs on the UPRR main line are shown on Figure 7-2.

- ***City of Industry IMF.*** The City of Industry IMF is located on Stimson Avenue, near the intersection of Anaheim-Puente Road and Arenth Avenue. It is located on the UPRR Alhambra Line, approximately six miles east of the PHMRF. The facility is operated 24 hours a day, seven days a week. In 2005, the City of Industry IMF handled 200,000 lifts (average of 548 lifts per day). Trucks carrying containerized MSW from the PHRMF and other MRFs within Los Angeles County would transfer containers to rail cars for transport and disposal at the MRL, similar to proposed operations at the PHIMF.

- ***East Los Angeles IMF.*** The East Lost Angeles IMF is located at 4341 East Washington Boulevard in the City of Commerce, adjacent to and directly north of the Hobart IMF. The East Los Angeles IMF is

located on the UPRR Los Angeles Subdivision Line approximately 12 miles west of the PHMRF. The facility is operated 24 hours a day, seven days a week, and has an average capacity of 1,575 lifts per day. In 2005, the East Los Angeles IMF handled 345,000 lifts. Trucks carrying containerized MSW from the PHRMF and other MRFs within Los Angeles County would transfer containers to rail cars for transport and disposal at the MRL, similar to proposed operations at the PHIMF.

In recent discussions with the UPRR they have stated that the nature of the solid waste business, which demands consistent, timely, and uninterrupted service to ensure proper waste management for public health reasons, would require the UPRR to provide dedicated tracks, railcars, and equipment to properly serve the project. This mode of operations is not consistent with how their existing yards are managed where containers, rail cars, and tracks are interchangeable to allow for maximum flexibility. In accordance with the California Integrated Waste Management Board's (CIWMB) regulations, MSW containers are required to be stored for no longer than 96 hours on-site. Dedicating one or more tracks to serve the waste-by-rail project would also severely reduce the operational capacity of the existing IMFs, at a time when expansions are needed to keep pace with the increase in intermodal traffic from the Long Beach and Los Angeles ports. Consequently, this alternative would result in greater impacts to other service systems in comparison to the proposed project.

Environmental Assessment

Aesthetics

Under this alternative, the PHIMF would not be developed and associated sources of light and glare would not be introduced into the project area. Project-related impacts would be eliminated in comparison to the proposed project.

Air Quality

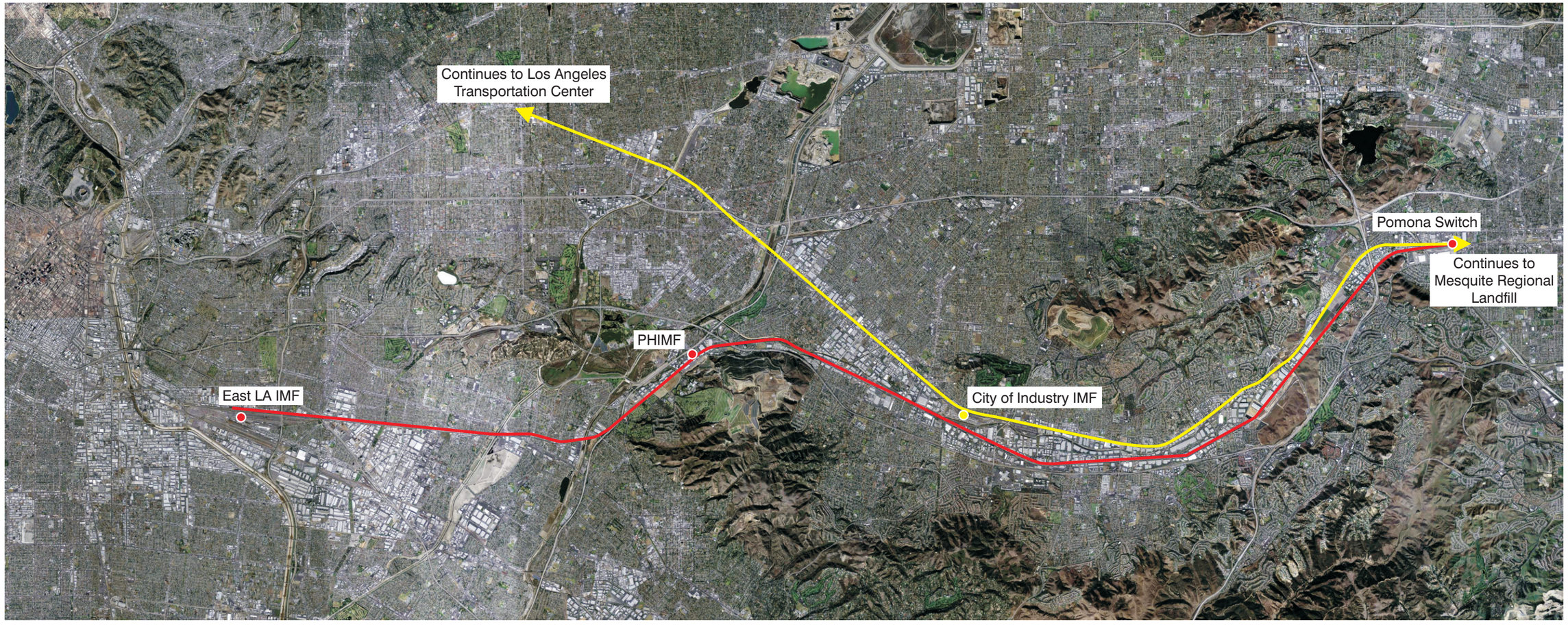
Construction Air Emissions

Under this alternative, the PHIMF, improvements to the UPRR right-of-way, and the off-street access road would not be developed and, therefore, construction emissions would not be generated. Compared to the proposed project, this alternative would eliminate the construction-related regional (mass daily) impact and eliminate the significant local (LST) air quality impact.

Operational Air Emissions

No air pollutant emissions would be generated from project-related employee vehicle trips under this alternative, as compared with the proposed project. This alternative would also eliminate the need for idling trains (locomotives and switch locomotives) and idling on-site trucks within the vicinity of residential areas near the proposed project site. Therefore, localized air quality impacts at the PHIMF under this alternative would be reduced in comparison to the proposed project. However, air emissions from idling of trains and on-site trucks would occur at the other IMFs similar to the operations at the PHIMF, thereby increasing localized air quality impacts in the vicinity of these IMFs.

Locations of Other IMFs



UPRR Los Angeles Subdivision Line*

UPRR Alhambra Line

* Formerly the UPRR San Gabriel Line

Source: Google Earth, Hanson Wilson Inc.

NOT TO SCALE

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Under this alternative, up to 8,000 tpd of containerized MSW would be transported from existing local IMFs to the MRL, which would require two trains (four train trips) per day, the same number that would be required for the proposed project. Train travel distances to the MRL would be slightly shorter for the City of Industry IMF, but would be slightly longer for the East Los Angeles IMF. However, these differences would be minor relative to the overall 388-mile round-trip rail route to the MRL, and could be offset by trucks having to travel longer or shorter distances to transport MSW from other MRFs to the existing IMFs. In the case of the 4,000 tpd of MSW originating from PHMRF, trucks would have to travel either 6 additional miles (to the City of Industry IMF) or 12 additional miles (to the East Los Angeles IMF) than they would if the PHIMF were constructed. The additional truck emissions from an increased haul route from the PHMRF to the existing local IMFs would result in additional mobile-source emissions. Overall, total mobile-source air pollutant emissions as a result of an increase in haul truck emissions under this alternative would likely be slightly greater than the proposed project. Consequently, regional air quality impacts would be greater than the proposed project.

Cultural Resources

Because grading and excavation for the off-street access road would not occur, there would be no potential impacts to undiscovered historical, archaeological, or paleontological resources or human remains. Assuming that such cultural resources exist, impacts would be eliminated in comparison to the proposed project.

Geology and Soils

Grading and excavation for the PHIMF, off-street access road, and improvements within the UPRR right-of-way would not occur under this alternative. Therefore, there would be no impacts related to groundwater or soil erosion. The potential would continue to exist for ground-shaking and secondary seismic impacts, such as liquefaction, to affect structures at the project site and within the project study area. Overall, impacts to geology and soils would be reduced in comparison to the proposed project.

Hazards and Hazardous Materials

This alternative would eliminate the need for storage, use, and disposal of hazardous materials at the proposed project site. However, hazardous materials would be used, perhaps in greater quantities, for equipment and rail maintenance activities at the existing IMFs. Similarly, hazards associated with rail transport of MSW would continue to exist along the UPRR main line, but would occur at additional or alternate locations, depending on the existing IMF used. Given these considerations, hazards and hazardous materials impacts for this alternative would remain essentially the same, but would occur at locations other than the project site and project study area.

Hydrology and Water Quality

Upon construction of the PHIMF, the area of impervious (i.e., paved) surfaces is expected to be about the same as under existing conditions. However, with the No Project alternative, ground surfaces would not be disturbed for facility construction and, therefore, there would be no increased potential for the discharge of sediments to local drainages and downstream receiving waters. Additionally, hazardous materials would not be used during construction or operation of the PHIMF, thereby eliminating the possibility of groundwater or surface water impacts. Overall, hydrology and water quality impacts would be reduced in comparison to the proposed project.

Noise

Construction Noise

Because construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way would not occur under this alternative, the significant construction noise and vibration impacts to sensitive receptors in the vicinity of the proposed project site would be eliminated.

Operational Noise

Under this scenario, noise associated with truck trips to and from the project study area would be reduced as compared to the project buildout scenario (2013), because MSW would not be received from other MRFs. This alternative would also eliminate noise at the project site from use of on-site equipment, train traveling (cumulative and single-event noise), train coupling, and idling trains, including the significant and unavoidable noise impacts at Gladstone residences from temporary idling of trains. Because the existing IMFs already have the infrastructure in place to handle rail transfer operations, nearby receptors are likely acclimated to rail-related noise and, therefore, noise impacts from an increase in facility activity would not be as significant as they would be for a facility developed at a new location, such as the PHIMF.

If the East Los Angeles IMF were used under this alternative scenario, sensitive receptors along an additional 12-mile segment of the UPRR Los Angeles Subdivision Line west of the PHMRF would be exposed to significant single-event noise and vibration impacts associated with two additional trains (four round trips) per day. Additional train horn soundings would occur at at-grade crossings along the extended segment of main-line track. Conversely, if the City of Industry IMF were used, train trips to the MRL would be shortened by approximately 6 miles, which would reduce train single-event noise and vibration impacts proportionately and shift them to different sensitive receptors along the UPRR Alhambra Line. Therefore, noise impacts related to train traffic would be either greater or less than the proposed project, depending on the alternative IMF used.

Under this alternative, the proposed noise-reduction measures (i.e., sound walls or noise shielding windows and doors) would not be provided along the UPRR right-of-way near the PHIMF site and a quiet zone would not be established at the Workman Mill Road at grade rail crossing, so residents at Whittier Woods and Gladstone would not benefit from these project-related noise Mitigation Measures. These measures would provide significant noise-reduction benefits to the local residents associated not only with the project, but also with existing and future non-project-related train traffic along the UPRR right-of-way. Primarily because the most significant noise impacts under this alternative would occur at existing IMFs, rather than at a new location unaccustomed to intermodal facility noise impacts, the alternative is judged to be environmentally superior to the proposed project with respect to noise.

Public Services

Because the PHIMF would not be in operation, impacts to police, fire, library, and schools would be reduced. Overall, public service impacts under this alternative would be reduced in comparison to the proposed project.

Recreation

Under this alternative, improvements within the UPRR right-of-way at the Peck Road rail crossing would not occur, and the Schabarum Trail would not be closed periodically during construction activities. Consequently, impacts to recreation would be eliminated in comparison to the proposed project.

Transportation and Traffic

Construction Transportation and Traffic

Because construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way would not occur under this alternative, neither would traffic delays caused by the partial closure of Peck Road and Workman Mill Road. Traffic delays at the at-grade rail crossings and train slowdown delays during construction of UPRR rail improvements also would not occur. Impacts to transportation and traffic during construction would be reduced in comparison to the proposed project.

Operational Transportation and Traffic

This alternative would require the transport of containerized MSW on the roadway network from the PHMRF and other MRFs to either the City of Industry IMF or the East Los Angeles IMF. While this alternative would eliminate the project's impact to vehicle delay at the Workman Mill Road railroad crossing from project-related trains, trains carrying MSW under this alternative would contribute to cumulative impacts at at-grade railroad crossing along the waste-by-rail route to the MRL. If the East Los Angeles IMF were used, the two additional trains (four round trips) would have to travel greater distances and pass through seven additional at-grade road crossings, thereby increasing traffic impacts at these intersections. Conversely, the shorter travel distance associated with rail transport to and from the City of Industry IMF would reduce at-grade traffic impacts and would eliminate traffic impacts associated with the Workman Mill Road at-grade crossing. Therefore, depending on which alternative IMF were used, rail-related traffic impacts would be either greater or less than those associated with the proposed project.

With respect to truck traffic, this alternative would result in two off-setting traffic conditions at the locations analyzed in the PHIMF Traffic Study: (1) instead of traveling on the off-street (nonpublic) road to the PHIMF, trucks carrying 4,000 tpd of MSW from the PHMRF would have to travel on local roadways to the existing IMFs; and (2) trucks that were expected to bring 4,000 tpd of MSW from other MRFs or transfer stations at project buildout in 2013 would instead go directly to the existing IMFs and would not travel on roadways in the vicinity of the proposed PHIMF. Because these impacts are offset each other, transportation and traffic impacts to the local roadway network associated with this alternative would be similar to the proposed project.

However, all 8,000 tpd of containerized MSW would require transport on the regional roadway network (as opposed to only 4,000 tpd with the proposed project). Consequently, transportation and traffic impacts to the regional roadway network would be greater than that of the proposed project.

Utilities and Service Systems

Water and wastewater services are currently provided for the vacant warehouse facility located at the PHIMF project site and would be continued on this minimal basis as required to maintain the property and grounds. Overall, utilities and service systems for this alternative would be reduced in comparison to the proposed project.

Ability to Reduce Environmental Impacts

The No Project Scenario 2 – Use of an Existing IMF alternative reduces or eliminates significant unavoidable local construction air quality, construction noise, and operational noise impacts that would result from the project. It also eliminates traffic impacts to local roadways during construction of the off-site rail line and roadway improvements, and during operation of the PHIMF at full buildout. However, this alternative is likely to result in significant new operational traffic and air impacts as a result of additional truck trips on the

regional roadway network. Truck traffic would increase in the vicinity of the existing IMFs and, therefore, local traffic impacts would merely be transferred to a new location. Importantly, this alternative would result in a significant impact to the existing IMF cargo service system, which is not designed for the routine handling of large quantities of MSW. Overall, this alternative would reduce or eliminate environmental impacts locally (i.e., at the project site and within the project study area), but would increase impacts regionally, particularly with respect to air quality, traffic and the provision of services. Because the regional impacts would be borne by a greater number of people, the proposed project is narrowly judged to be environmentally superior to this alternative.

Ability to Attain Project Objectives

(Note: The reference numbers in this section refer to the project objectives listed in Section 7.1.2)

It is uncertain whether or not the existing IMFs have the capability to handle the additional container transfer requirements associated with the proposed PHIMF project (8,000 tpd or 364 lifts per day), much less the ultimate capacity of the planned waste-by-rail system (20,000 tpd or 909 lifts per day). Nor does it appear that existing IMFs could dedicate the equipment and services necessary to fully accommodate MSW transfer operations, given their other service obligations and the unique project requirements to maintain strict transportation schedules and minimize on-site container storage times. These uncertainties cast doubt on the ability of the existing IMFs to serve waste-by-rail requirements in an environmentally sound and cost-effective manner (project objective No. 1). While this alternative would develop a waste-by-rail system to transport containerized MSW by rail to the MRL, the IMF would not be dedicated solely to the transport of containerized MSW to the MRL (project objective No. 3). Furthermore, this alternative would not provide a nonpublic accessway to transport MSW from the PHMRF or other MRFs or transfer stations, which would exacerbate local traffic impacts in the vicinity of the existing IMFs (project objective No. 4). Although this alternative would eliminate many of the significant impacts, it would not attain the project objectives.

7.2.3 Alternative Location Scenario – Alternative Site No. 3

Alternative Description

The Alternative Location Scenario – Alternative Site No. 3 would relocate the on-site operations of the PHIMF to a parcel southwest of the proposed project site. This alternative location consists of a single parcel (APN 8125-017-017) of 20.1 acres that is currently used as a trucking terminal by Federal Express (see Figure 7-1). Use of this parcel would allow for maximization in the length of the on-site loading tracks. In addition, this alternative site would minimize construction impacts associated with the off-street access road, because it is located south of the UPRR tracks.

Under this alternative, construction of the PHIMF would be similar to that of the proposed project. Improvements to the Peck Road railroad bridge and modifications to State Route 60 would still be required. Because this alternative would be located south of the UPRR right-of-way, off-street access road improvements requiring tunneling under the UPRR right-of-way would no longer be necessary, which would shorten the construction schedule for this activity by an estimated four to six months. However, this alternative would still require either tunneling under Workman Mill Road and/or raising the roadway to construct the off-street access road.

Intermodal facility operations would also be similar to the proposed project. Operation of the PHIMF south of the UPRR right-of-way would consist of two trains per day (four round trips per day). Furthermore, the location of the staging tracks would be the same as the proposed project. Consequently, this alternative would require the same number of at-grade train crossings at Workman Mill Road and the location of train

couplings would occur in the same general location as the proposed project. However, because the alternative site would accommodate longer on-site loading tracks (four 1,200-foot tracks vs. six 800-foot tracks at the proposed project site), two fewer coupling events per train would be required.

The owner of the Federal Express parcel is unwilling to sell or lease the property, or to relocate the existing business. Therefore, unlike the proposed project site, this parcel is unavailable for development into an intermodal facility unless eminent domain is exercised.

Environmental Assessment

Aesthetics

Under this alternative, the PHIMF would be developed, along with its attendant sources of light and glare. This alternative location would be developed farther from Interstate 605 but closer to the Rio Hondo College and Rose Hills Memorial Park. However, the locations of both sites are surrounded by commercial and industrial uses. Consequently, project-related impacts of this alternative would be similar in comparison to the proposed project.

Air Quality

Construction Air Emissions

Under this alternative, construction activities would still occur near sensitive receptors; however, site-specific construction of the intermodal facility would occur farther away from the Pellissier Village and Gladstone residences but closer to Rio Hondo College and Rose Hills Memorial Park. Under this alternative, the PHIMF, improvements to the UPRR right-of-way, and the off-street access road would still be developed. However, tunneling under the UPRR right-of-way for the off-street access road would not be required. Consequently, the magnitude and duration of construction activities would be somewhat reduced and construction-related air emissions would be reduced proportionately. Compared to the proposed project, this alternative would slightly reduce the regional (mass daily) construction air quality impacts and significant local (LST) construction air quality impact of the project.

Operational Air Emissions

Under this alternative, the number of employee vehicles, truck trips, and trains trips would be the same as the proposed project. Consequently, regional air quality emissions would be similar to the proposed project. However, the distance that hostler trucks would have to travel from the PHMRF to the PHIMF would be slightly shortened, which would reduce air emissions associated with this truck traffic by a corresponding amount. This alternative would also shift on-site operations at the PHIMF farther to the south. Consequently, on-site idling trucks, RTG cranes, forklifts, switcher locomotive, and container handler emissions would be located farther from the Pellissier Village and the Gladstone residences, but closer to Rio Hondo College and Rose Hills Memorial Park. Idling main-line locomotives would be located at the same location as compared to the proposed project and, thus, would not change air emission impacts from this activity. Based on the incremental decrease in emissions from the hostler truck traffic and the relocation of facility emissions slightly farther from sensitive residential receptors, this alternative site is narrowly judged to be superior to the proposed project with respect to air quality impacts.

Cultural Resources

Because the amount of excavation required to construct the off-street access road would be less under this alternative, potential impacts to undiscovered historical, archaeological, or paleontological resources or human remains would be reduced in comparison to the proposed project.

Geology and Soils

Grading and excavation for the PHIMF, off-street access road, and improvements within the UPRR right-of-way would occur under this alternative. Therefore, impacts related to geology and soils would be similar in comparison to the proposed project. The potential for ground-shaking and secondary seismic impacts, such as liquefaction, to affect structures would also remain for the project site and study area. Overall, impacts to geology and soils would be the same in comparison to the proposed project.

Hazards and Hazardous Materials

This alternative would not reduce the number of train trips on the 18-mile stretch of the UPRR, nor would it eliminate the need for storage, use, and disposal of hazardous materials at the project site. Therefore, overall hazards and hazardous materials impacts would be similar in comparison to the proposed project.

Hydrology and Water Quality

This alternative would result in similar construction activities as the proposed project, resulting in similar areas covered by impervious surfaces and sitewide drainage improvements. The potential for soil erosion and the discharge of sediments and pollutants to the drainages and downstream receiving waters during construction and facility operations would be the same as the proposed project. Overall, hydrology and water quality impacts would be similar in comparison to the proposed project.

Noise

Construction Noise

Because construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way would still occur under this alternative, the significant construction noise and vibration impacts to sensitive receptors associated with the project would not be eliminated. Under this alternative, improvements conducted within the UPRR right-of-way would be similar to the proposed project. However, because the project site would be shifted to the south, noise generated during construction of the PHIMF would be closer to Rio Hondo College and Rose Hills Memorial Park, resulting in new noise and vibration impacts to different numbers of individuals at these sensitive receptor locations. The shorter construction schedule and shifting of the construction-related impacts away from residential sensitive receptors would reduce construction-related noise and vibration impacts, resulting in this alternative being considered superior in comparison to the proposed project with respect to construction noise impacts.

Operational Noise

Under this scenario, trains on the 18-mile segment of the UPRR main line, employee vehicles, and truck trips would operate similarly to the proposed project. Consequently, mobile-source noise and vibration impacts to residences within the vicinity of the project site would be similar to the proposed project. Train coupling events would also occur at the same location as the proposed project, but because the site would accommodate longer loading tracks, trains would be uncoupled in longer segments and fewer coupling events per train would be required. However, train coupling events would occur at a location closer to Rose

Hills Memorial Park, thereby increasing noise from rail activities at this location. Noise generated from the use of on-site equipment would be located farther from the Pellissier Village and Gladstone residences but closer to Rio Hondo College and Rose Hills Memorial Park. Therefore, noise impacts from on-site activities would be reduced at the Pellissier Village and Gladstone residences but would potentially result in new significant noise impacts at Rio Hondo College and Rose Hills Memorial Park. Given these off-setting conditions, operational noise and vibration impacts under this alternative are considered to be similar compared to the proposed project.

Public Services

Under this alternative, the PHIMF infrastructure and activities would be similar to those of the proposed project. Once operational, the PHIMF would employ approximately the same number of employees. Therefore, impacts to police, fire, library, and school services under this alternative would be similar in comparison to the proposed project.

Recreation

This alternative would require modifications to the Peck Road railroad bridge. Consequently, the Schabarum Trail would be closed periodically during construction activities and impacts to recreation would be similar in comparison to the proposed project.

Transportation and Traffic

Construction Transportation and Traffic

Because construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way would occur under this alternative, local traffic delays caused as a result of partial closure of Peck Road and Workman Mill Road and delays at the at-grade crossings during a UPRR main-line slow order would be similar to the proposed project. Given these considerations, impacts to transportation and traffic during construction would be similar in comparison to the proposed project.

Operational Transportation and Traffic

Because operations of the PHIMF would be the same as the proposed project, train, employee vehicle, and truck traffic impacts to the local and regional circulation system would be similar to the proposed project. Furthermore, trains under this alternative would continue to cross the Workman Mill Road railroad crossing similar to the proposed project. Consequently, transportation and traffic impacts to the local and regional roadway network would be similar to those of the proposed project.

Utilities and Service Systems

Water and wastewater services would be the same under this alternative. Overall, utilities and service systems for this alternative would be similar in comparison to the proposed project.

Ability to Reduce Environmental Impacts

By eliminating the need to tunnel under the UPRR right-of-way, the Alternative Location Scenario – Alternative Site No. 3 would slightly reduce the duration of construction activities and, consequently, the intensity of construction-related noise and air quality impacts would be reduced accordingly. Once operational, impacts of this alternative would be similar in comparison to the proposed project, although local impacts associated with operational air emissions and noise (e.g., idling) would be moved farther from

sensitive residential receptors at Pellissier Village and Gladstone and closer to sensitive receptors at Rio Hondo College and Rose Hills Memorial Park. Slight air quality benefits would be achieved by shortening the distance that trucks would have to travel between the PHMRF and PHIMF. Although this alternative would slightly reduce construction impacts by eliminating the need to build a bridge under the UPRR right-of-way for the off-street access, coupling and uncoupling train operations would occur closer to Rose Hills Memorial Park and would increase the noise levels as compared to the proposed project from this activity. Therefore, this alternative is environmentally neutral to the proposed project.

Ability to Attain Project Objectives

The Alternative Location Scenario – Alternative Site No. 3 would meet all of the project objectives. It would facilitate the development of a waste-by-rail system to support the MRL by providing for the construction and operation of a local IMF capable of handling up to 8,000 tpd of MSW.

7.2.4 Reduced Project Alternative – Maximum Permitted Capacity of 4,000 tpd

Alternative Description

The Reduced Project Alternative – Maximum Permitted Capacity of 4,000 tpd would reduce the total capacity of the PHIMF by 4,000 tpd. Under this alternative, up to 4,000 tpd of containerized MSW would be accepted from the PHMRF beginning in initial operating year 2011/2012, as would be the case with the proposed project. However, the LACSD would not increase operations of the PHIMF in year 2013 to accommodate a second train to haul 4,000 tpd of containerized MSW from other MRFs or transfer stations to the MRL. Instead, MSW from other MRFs would be either transported by truck to other local landfills or shipped by rail to regional landfills via existing or yet to be developed IMFs.

The infrastructure required to support the reduced project alternative is the same as would be required for the proposed project. Development would include construction of the PHIMF, as designed, the preferred off-street access road, and rail improvements within the UPRR right-of-way, including construction of two new staging tracks next to the UPRR main lines. Because the staging tracks would be constructed within the UPRR right-of-way along a section of main-line track that is currently utilized near capacity, the UPRR has reserved the right to utilize one of the staging tracks for its operations should the need arise. Consequently, to ensure the continuous operation of the PHIMF, the construction of the two staging tracks would be necessary whether the facility is permitted for 4,000 tpd or 8,000 tpd.

Environmental Assessment

Aesthetics

Under this alternative, the PHIMF would be developed, along with its attendant sources of light and glare. Project-related impacts of this alternative would be similar in comparison to the proposed project.

Air Quality

Construction Air Emissions

Under this alternative, the PHIMF, improvements to the UPRR right-of-way, and the off-street access road would still be developed. Therefore, the magnitude and duration of construction activities in the project area would be the same as the proposed project. Consequently, regional (mass daily) and local (LST and health risk) construction air quality impacts would be the same compared to those of the project.

Operational Air Emissions

Under this alternative, the number of employee vehicle trips to the site would be similar to the proposed project. However, all of the truck trips from other MRFs and transfer stations and one of the daily train trips would be eliminated, resulting in a substantial reduction in project-related air emissions, particularly as they relate to local air quality impacts. This alternative would also result in the reduction of air emissions associated with the operation of on-site equipment, such as RTG cranes, container handlers, and the switch locomotive, which would only be handling one-half the volume of waste at full project operations. The number of trucks and locomotives idling and traveling to and from the PHIMF would be reduced as compared to the proposed project. Consequently, localized concentrations of air pollutant emissions would be reduced at the nearby sensitive receptors, and this alternative would reduce the local air quality impacts of the proposed project.

The 4,000 tpd of MSW not sent to the PHIMF would be transported in trucks to other landfills in southern California or shipped by rail to regional landfills via existing or future IMFs. Trucking the MSW to other landfills would require approximately 182 trucks per day, which would result in greater air emissions within the Los Angeles Basin if transported by truck to the MRL (see Table 7-1). If the 4,000 tpd of MSW were transported to the MRL by rail using another IMF, emissions would likely be similar to those calculated for the proposed project. In summary, air emissions associated with stationary sources and local air quality impacts would be reduced under this alternative, while regional emissions associated with train and truck traffic would likely remain the same, because trucks and/or trains would be still be required to transport the 4,000 tpd of MSW not processed by the PHIMF. Overall, this alternative is considered to be environmentally superior with respect to the proposed project.

Cultural Resources

Because grading and excavation for the off-street access road would occur, potential impacts to undiscovered historical, archaeological, or paleontological resources or human remains would be similar in comparison to the proposed project.

Geology and Soils

Grading and excavation for the PHIMF, off-street access road, and improvements within the UPRR right-of-way would occur under this alternative. Therefore, impacts related to geology and soils would be similar in comparison to the proposed project. The potential for ground-shaking and secondary seismic impacts, such as liquefaction, to affect structures would also remain for the project site and study area. Overall, impacts to geology and soils would be the same in comparison to the proposed project.

Hazards and Hazardous Materials

This alternative would not eliminate the need for the storage, use, and disposal of hazardous materials at the project site. The alternative would, however, eliminate one daily project train (two train trips) on the 18-mile stretch of the UPRR between the PHIMF and the Pomona Switch, thereby reducing the likelihood of a train derailment and its attendant hazards. Therefore, overall hazards and hazardous materials impacts associated with this alternative would be reduced in comparison to the proposed project.

Hydrology and Water Quality

This alternative would result in similar construction activities as the proposed project, resulting in similar areas covered by impervious surfaces and sitewide drainage improvements. The potential for soil erosion and the discharge of sediments and pollutants to the drainages and downstream receiving waters during

construction and facility operations would be the same as the proposed project. Overall, hydrology and water quality impacts would be similar in comparison to the proposed project.

Noise

Construction Noise

Because construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way would occur under this alternative, the significant construction noise and vibration impacts to sensitive receptors in the vicinity of the proposed project site would not be eliminated. Consequently, construction noise impacts would be the same in comparison to the proposed project.

Operational Noise

Under this alternative, one daily train (two train trips) would be eliminated on the 18-mile segment of the UPRR main line between the PHIMF and the Pomona Switch. Accordingly, noise and vibration impacts associated with coupling and operation of a second train would be eliminated. However, because a single daily train would be operated from the PHIMF to the MRL under this alternative, significant single-event noise and vibration impacts from train pass-bys associated with the project would still occur on the 18-mile segment of the UPRR main line. Accordingly, noise mitigation measures would still be required, as they are for the proposed project.

This alternative would eliminate the need for trucks carrying 4,000 tpd of containerized MSW from other MRFs or transfer stations to enter the local roadway network in the vicinity of the PHIMF. Consequently, under this alternative, mobile-source noise impacts to residences within the vicinity of the project site would be reduced in comparison to the proposed project. However, because the 4,000 tpd of containerized MSW would still require transport to another landfill or IMF, the local noise impacts would be displaced to other neighborhoods. In summary, noise from use of on-site equipment, train coupling, and idling trains and trucks would be reduced under this alternative in proportion to the reduced volume of MSW processed at the PHIMF. Overall, noise impacts under this alternative would be reduced in comparison to the proposed project.

Public Services

Under this alternative, the PHIMF infrastructure and activities would be similar to those of the proposed project. Once operational, the PHIMF would employ approximately the same number of employees. Therefore, impacts to police, fire, library, and school services under this alternative would be similar in comparison to the proposed project.

Recreation

This alternative would require temporary closure of the Schabarum Trail during improvements to the Peck Road bridge underpass. Consequently, impacts to recreation would be the same in comparison to the proposed project.

Transportation and Traffic

Construction Transportation and Traffic

Because construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way would still occur under this alternative, local traffic delays caused as a result of partial closure of Workman Mill Road and delays at the at-grade crossings during a UPRR main-line slow order would be similar to the

proposed project. Therefore, impacts to transportation and traffic during construction would be the same when compared to impacts of the proposed project.

Operational Transportation and Traffic

This alternative would eliminate the need for trucks carrying 4,000 tpd of containerized MSW from other MRFs or transfer stations to enter the local roadway network, thereby reducing local traffic impacts during operation of the PHIMF. In addition, this alternative would reduce the number of daily at-grade rail crossings at the Workman Mill Road from four to two, resulting in fewer traffic delays on Workman Mill Road. However, the containerized MSW would still require transport on the regional roadway network to other landfills or IMFs. Consequently, transportation and traffic impacts to the regional roadway network would be similar compared to the proposed project, as local traffic impacts would occur at other locations. Consequently, transportation and traffic impacts to the local roadway network would be reduced in comparison to the proposed project.

Utilities and Service Systems

Water and wastewater services would be the same under this alternative. Overall, utilities and service systems for this alternative would be similar in comparison to the proposed project.

Ability to Reduce Environmental Impacts

Overall, the Reduced Project Alternative substantially reduces local environmental impacts associated with the operation of a two-train-per-day project, but does not eliminate significant unavoidable impacts related to air quality and noise. Localized impacts to operational air quality, operational noise, and traffic would be substantially reduced in comparison to the proposed project. Therefore, this alternative is considered to be environmentally superior to the proposed project, as it would reduce impacts on the local community surrounding the PHIMF. However, the 4,000 tpd of MSW not processed by the PHIMF would instead be directed to other landfills or IMFs in Los Angeles County or surrounding counties. This would likely result in new significant impacts to traffic, air, and noise at these other locations. To the extent that environmental impacts are merely displaced to other locations, regional impacts under this alternative are considered to be similar to the proposed project.

Ability to Attain Project Objectives

(Note: The reference numbers in this section refer to the project objectives listed in Section 7.1.2)

The Reduced Project Alternative would not achieve project objective No. 3, which requires the development of a local intermodal facility with the capacity to handle up to 8,000 tpd of MSW. While this alternative would develop the PHIMF to transport containerized MSW by rail to the MRL, the PHIMF would not provide rail capacity for 4,000 tpd of MSW from other MRFs or transfer stations in addition to the 4,000 tpd from the PHMRF. This, in turn, would limit the ability of the LACSD to meet its obligation to ensure continued disposal capacity for Los Angeles County refuse through the development of local infrastructure to support a waste-by-rail system (project objective No. 1). It would also require (1) use of existing rail yard IMFs that are unsuitable for servicing MSW requirements, (2) use of local landfills that have limited remaining capacities, and/or (3) construction of new/additional IMFs at other locations.

However, as detailed in Chapter 3, *Project Description*, forecasts for waste generation in Los Angeles County indicate that additional waste transport capacity over 4,000 tpd will be needed. Thus, to meet the future needs of Los Angeles County waste disposal, an additional IMF would have to be developed to handle the 4,000 tpd that would not be provided for by the Reduced Project Alternative. Although additional intermodal

facilities would be required to support the full buildout potential of the MRL as a waste-by-rail facility, a reduction in the permitted capacity of the proposed project could render it economically infeasible, as a single train operation at 4,000 tpd would not support the capital investment needed to develop an intermodal facility at the proposed project site. To offset the reduced capacity of the PHIMF, other local IMFs would have to have greater capacities or more IMFs would have to be constructed to accommodate the 20,000 tpd of MSW projected for the MRL waste-by-rail system. For example, if all the local IMFs required to support the MRL waste-by-rail system were constructed with capacities of 4,000 tpd rather than 8,000 tpd, then two additional IMFs would have to be constructed, which would affect a greater number of communities. Although this alternative would reduce many of the project environmental impacts, it would not attain the project objectives.

7.2.5 Alternative Track Layout – East Track Option

Alternative Description

The Alternative Track Layout – East Track Option would construct the PHIMF and the off-street access road similar to the proposed project. Operation of the PHIMF would be the same as the project, with the exception of train movements within the UPRR right-of-way. Under this alternative, the two new LACSD staging tracks would be constructed farther east (see Figure 7-1). The LACSD would place two approximately 8,000-foot-long staging tracks east of the at-grade rail crossing at Workman Mill Road, with a yard lead that would traverse the at-grade rail crossing at this intersection and connect to the loading tracks within the PHIMF. Under the East Track Option, arriving and departing trains would be temporarily staged on the tracks east of Workman Mill Road. The trains would be disconnected into six segments and each segment would cross the at-grade crossing separately. Consequently, this alternative would require six crossings at the Workman Mill Road at-grade crossing during assembly and disassembly of each train, requiring the crossing gates to be lowered and horns to be sounded. While this alternative would decrease the length of time necessary for individual train segments to cross the Workman Mill Road crossing, this alternative would increase the frequency of rail crossings at this intersection. By shifting the tracks farther to the east, the Alternative Track Layout – East Track Option would eliminate the need to expand the Peck Road railroad bridge.

Environmental Assessment

Aesthetics

Under this alternative, the PHIMF would be developed at full capacity, along with its attendant sources of light and glare. Furthermore, under this alternative, trains would be constructed and stacked on the staging tracks, which would border the Gladstone, Whittier Woods, Avocado Heights, and Wildwood Drive residences. Double-stacked rail cars would temporarily degrade the aesthetics in the vicinity of these sensitive land uses when trains were being constructed. The proposed 16-foot sound wall at the Gladstone residences and the Whittier Woods residents would reduce this impact; however, no wall is proposed adjacent to the Avocado Heights or the Wildwood Drive residences to reduce this potentially significant impact. Project-related impacts of this alternative would therefore be greater in comparison to the proposed project.

Air Quality

Construction Air Emissions

Under this alternative, the PHIMF, improvements to the UPRR right-of-way, and the off-street access road would be developed and construction-related air emissions would be generated. However, this alternative

eliminates the need to expand the Peck Road railroad bridge. Consequently, air quality emissions during the temporary construction phase would be reduced in comparison to the proposed project.

Operational Air Emissions

Under this alternative, the number of employee vehicles, truck trips, and trains trips would be the same as the proposed project. Consequently, regional air quality emissions would be similar to the proposed project. The staging tracks would be shifted to the east, where residential neighborhoods are denser and closer to the UPRR right-of-way. Therefore, more individuals would be exposed to localized air pollutant emissions from idling trains (locomotives and switch locomotives). Consequently, this alternative would increase local air quality impacts in comparison to the proposed project. Because the localized impacts would be long term and impact a greater number of individuals, the proposed project is considered to be environmentally superior to this alternative with respect to air quality.

Cultural Resources

Because grading and excavation for the off-street access road would still occur, potential impacts to undiscovered historical, archaeological, or paleontological resources or human remains would be similar in comparison to the proposed project.

Geology and Soils

Grading and excavation for the PHIMF, off-street access road, and improvements within the UPRR right-of-way would occur under this alternative. Therefore, impacts related to geology and soils would be similar in comparison to the proposed project. The potential for ground-shaking and secondary seismic impacts, such as liquefaction, to affect structures would also remain for the project site and study area. Overall, impacts to geology and soils would be the same in comparison to the proposed project.

Hazards and Hazardous Materials

This alternative would not reduce the number of train trips on the 18-mile stretch of the UPRR, nor would it eliminate the need for storage, use, and disposal of hazardous materials at the project site. Therefore, overall hazards and hazardous materials impacts would be similar in comparison to the proposed project.

Hydrology and Water Quality

This alternative would result in similar construction activities as the proposed project, resulting in similar areas covered by impervious surfaces and sitewide drainage improvements. The potential for soil erosion and the discharge of sediments and pollutants to the drainages and downstream receiving waters during construction and facility operations would be the same as the proposed project. Overall, hydrology and water quality impacts would be similar in comparison to the proposed project.

Noise

Construction Noise

Because construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way would still occur under this alternative, the significant construction noise and vibration impacts to sensitive receptors associated with the project would not be eliminated. Furthermore, under this alternative, improvements within the UPRR right-of-way would be constructed closer to residential neighborhoods farther to the east of the proposed track layout, resulting in new noise and vibration impacts to greater numbers of

individuals at these sensitive receptor locations. Consequently, this alternative would result in new significant impacts when compared to the proposed project.

Operational Noise

Under this scenario, trains on the 18-mile segment of the UPRR main line, employee vehicles, and truck trips would operate similarly to the proposed project. Consequently, mobile-source noise and vibration impacts to residences within the vicinity of the project site would be similar to the proposed project. Noise from the use of on-site equipment would also be similar to the proposed project, because the location of the PHIMF and its on-site operations would not be altered. Train coupling events would be located closer to the Gladstone and Whittier Woods residences, thereby increasing noise impacts at these sensitive receptor locations and resulting in potentially new significant noise impacts. Under this scenario, locomotives would idle in similar locations bordering the residential areas, similar to the proposed project, resulting in similar noise impacts in this regard. Because this latter impact would affect more individuals, noise impacts under this alternative are judged to be greater in comparison to the proposed project.

Public Services

Under this alternative, the PHIMF infrastructure and activities would be similar to those of the proposed project. Once operational, the PHIMF would employ approximately the same number of employees. Therefore, impacts to police, fire, library, and school services under this alternative would be similar in comparison to the proposed project.

Recreation

By shifting the tracks farther to the east, this alternative would eliminate the need to expand the Peck Road railroad bridge. Consequently, the Schabarum Trail would not be closed periodically during construction activities and impacts to recreation would be reduced in comparison to the proposed project.

Transportation and Traffic

Construction Transportation and Traffic

Because construction of the PHIMF, off-street access road, and improvements within the UPRR right-of-way would occur under this alternative, local traffic delays caused as a result of partial closure of Workman Mill Road and delays at the at-grade crossings during a UPRR main-line slow order would be similar to the proposed project. By shifting the staging tracks farther to the east, improvements to the Peck Road bridge underpass would not be necessary; therefore, Peck Road would not be partially closed and the duration of construction activities would likely be shortened. Given these considerations, impacts to transportation and traffic during construction would be reduced in comparison to the proposed project.

Operational Transportation and Traffic

Because operations of the PHIMF would be the same as the proposed project, train, employee vehicle, and truck traffic impacts to the local and regional circulation system would be similar to the proposed project. Under this alternative, trains would be assembled east of the Workman Mill Road at-grade railroad crossing, which would require six crossings at the Workman Mill Road at-grade crossing during assembly and disassembly of each train. Although each crossing would be of shorter duration than the crossing of an entire train, the increased daily frequency of crossings would substantially disrupt traffic and cause additional delays at this intersection. Consequently, transportation and traffic impacts to the local and regional roadway network would be greater in comparison to the proposed project.

Utilities and Service Systems

Water and wastewater services would be the same under this alternative. Overall, utilities and service systems for this alternative would be similar in comparison to the proposed project.

Ability to Reduce Environmental Impacts

The Alternative Track Layout – East Track Option would reduce construction-related air quality, noise, recreational, and traffic impacts by eliminating the need to modify the Peck Road railroad crossing. However this alternative is likely to result in new significant construction and operational noise and vibration impacts and new local operational air quality impacts at sensitive residential areas farther to the east. In addition, by staging the trains east of Workman Mill Road, additional daily train crossings at Workman Mill Road would be required to process incoming and outgoing rail cars. Because of this significant traffic-related impact and because the environmental impacts associated with this alternative would affect a greater number of sensitive receptors for a longer period of time, this alternative is considered to be environmentally inferior to the proposed project.

Ability to Attain Project Objectives

(Note: The reference numbers in this section refer to the project objectives listed in Section 7.1.2)

The Alternative Track Layout – East Track Option would meet all of the project objectives. It would facilitate the development of a waste-by-rail system to support the MRL by providing for the construction and operation of a local IMF capable of handling up to 8,000 tpd of MSW.

7.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR must identify an "environmentally superior" alternative from among those selected for detailed analysis. In instances where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify an alternative as environmentally superior from among the others evaluated. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. However, only those impacts found significant and unavoidable are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. Only the impacts involving air quality and noise were found to be significant and unavoidable for the proposed project.

The following alternative was selected as the environmentally superior alternative for its ability to reduce the significant impacts of the project:

- Reduced Project Alternative – Maximum Permitted Capacity of 4,000 tpd

The Reduced Project Alternative – Maximum Permitted Capacity of 4,000 tpd has been identified as the environmentally superior alternative. The construction impacts associated with this alternative are generally the same as the proposed project. However, due to the requirement for only one daily train trip rather than two, this alternative would lessen operational impacts associated with noise from idling locomotives and car coupling, single-event noise and vibration from train pass-bys, local air quality impacts from locomotive emissions, and traffic impacts due to train crossings at Workman Mill Road. Although the magnitude of the air and noise impacts would be reduced, they would still remain significant and unavoidable under the Reduced Project Alternative. Table 7-2 provides a comparison of the environmental impacts of the proposed

project to the project alternatives, while Table 7-3 provides a comparison of the objectives of the proposed project to the project alternatives.

Table 7-2
Proposed Project vs. Project Alternatives
Comparison of Environmental Impacts

Environmental Impact	Project Alternative					
	Proposed Project	No Project Scenario 1 – Truck Waste to Landfills	No Project Scenario 2 – Use of an Existing IMF	Alternative Location Scenario – Alternative Site No. 3	Reduced Project Alternative – Maximum Permitted Capacity of 4,000 tpd	Alternative Track Layout – East Track Option
Aesthetics	LS	–	–	=	=	+[2]
Air Quality – Construction						
Regional Impacts	**S**	–	–	–	=	–
Local Impacts	**S**	–[2]	–[1]	–	=	–
Air Quality – Operational						
Regional Impacts	**S**	+	+	=	–	=
Local Impacts	LSM	–	–	=[3]	–	+
Cultural Resources	LS	–	–	–	=	=
Geology and Soils	LSM	–	–	=	=	=
Hazards and Hazardous Materials	LSM	–	–	=	–	=
Hydrology and Water Quality	LS	–	–	=	=	=
Noise – Construction	**S**	–[1]	–[1]	=	=	+
Noise – Operational	**S**	–[1]	–[1]	=[3]	–	+
Public Services	LSM	–	–	=	=	=
Recreation	LSM	–	–	=	=	–
Transportation/Traffic – Construction	LSM	–	–	=	=	–
Transportation/Traffic – Operational						
Circulation/Safety	LSM	+	+	=	–	+
Train Delay	**S**	–[1]	–[1]	=	–	+
Utilities and Service Systems	LSM	–	+[1]	=	=	=

Notations:
LS Less than Significant or no Impact
LSM Less than Significant Impact with Mitigation
S Significant Impact
– Impacts would be less than those of the proposed project
\+ Impacts would be greater than those of the proposed project.
= Impacts would be similar to the proposed project.
[1] Eliminates a significant impact.
[2] Introduces a new significant impact.
[3] Eliminates a significant impact but introduces a new significant impact.

Table 7-3
Proposed Project vs. Project Alternatives
Ability to Achieve Project Objectives

Project Objectives	Project Alternatives				
	No Project Scenario 1 – Truck Waste to Landfills	No Project Scenario 2 – Use of an Existing IMF	Alternative Location Scenario – Alternative Site No. 3	Reduced Project Alternative – Maximum Permitted Capacity of 4,000 tpd	Alternative Track Layout – East Track Option
To ensure continued disposal capacity for Los Angeles County refuse through the development of environmentally sound and cost-effective local infrastructure to support a waste-by-rail system.	No	No	Yes	No	Yes
To comply with recommendations from the Ad Hoc Committee on Waste-by-Rail and Condition No. 58 of Conditional Use Permit Case No. 02-027-(4) regarding the development of a waste-by-rail system.	No	Yes	Yes	Yes	Yes
To provide a dedicated local intermodal facility with the capacity for up to 4,000 tons per day (tpd) (six-day average or tpd-6) of municipal solid waste (MSW) from the Puente Hills Materials Recovery Facility (PHMRF), as well as approximately 4,000 tpd-6 of MSW from other facilities, comprising up to two waste-by-rail trains per day. A minimum site size of 15 acres is required to accommodate this capacity.	No	No	Yes	No	Yes
To avoid potential local traffic impacts by providing a nonpublic accessway between the Puente Hills Materials Recovery Facility and the proposed intermodal facility.	No	No	Yes	Yes	Yes

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